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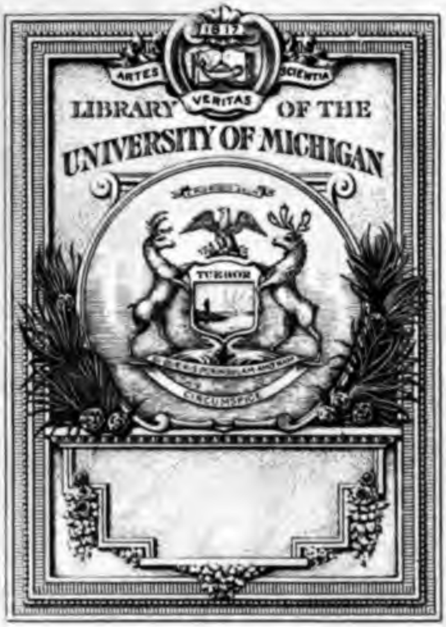
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ERRATA IN VOL. V.

Page 14, line 16 from bottom, for *Zeuker* read *Zenker.*
" 22, " 10 " top, for *February* read *August.*
" 55, " 23 " bottom, for *Plumus* read *Plumos.*
" 117, " 16 " " for *Vol.* 5 read *Vol.* 4.
" 154, " 12 " top, for *necessarily* read *unnecessarily.*
" 157, " 4 " bottom, for *Heidinger* read *Haidinger.*
" 169, " 10 " top, for *Dikaj* read *Dijak.*
" 209, " 7 " " for *isoseoles* read *isosceles.*
" 209, " 10 " " for *joints* read *points.*
" 210, " 5 " bottom, for *papulus* read *Passalus.*
" 210, " 4 " " for *gulus* read *Julus.*
" 212, " 21 " " for 8 read 13, and for 34 read 54.
" 224, " 10 and 11 from bottom, for *Aspidagaster* read *Aspidogaster.*
" 227, " 2 from bottom, insert John H. Brinton.
" 256, " 5 " " for *Sowerly* read *Sowerby.*
" 259, " 13 " " for *Statisque* read *Statistique.*
" 275, " 10 " top, for *Longstreth* read *Langstroth.*
" 276, " 19 " " for *robustum* read *priscum.*
" 276, " 23 " " for *i.* ½ read *i.* ¾.
" 276, " 2 " bottom, before "by" insert "read."
" 295, " 8 " top, for *were* read *are.*
" 296, " 5 " " for *Silliquaria* read *Sigillaria.*
" 297, " 13 " " for *Ireland* read *Iceland.*
" 297, bottom line, for *Arctos* read *maritimus.*
" 301, line 21 from bottom, for *cinqe* read *cinque.*
" 345, top line, for *puncticollis* read *poricollis.*
" 357, line 21 from top, for *Coaco* read *Cocoa.*
" 357, " 11 " bottom, for *Borneo* read *Africa.*
" 357, bottom line, for *Fiuns* read *Finns.*

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PROCEEDINGS

OF THE

CADEMY OF NATURAL SCIENCES

OF PHILADELPHIA.

January 1, 1850.

Dr. MORTON, President, in the Chair.

A letter was read, dated New York, December, 1849, accompanying donation made this evening of the Python, from Mr. Sandwith nker, of Hong Kong, China.

Also a letter from Mr. J. M. Richardson, of London, dated November 1849, desiring information of a mode of transmitting to the ademy certain Nos. of the Journal of the Indian Archipelago.

Dr. Morton, having resigned the Chair to Mr. Ashmead, read a tinuation of his Memoir on the size of the Brain in the various es and families of Man; which was referred to the Committee on previous portions of the paper.

A communication was read from Prof. Spencer F. Baird, Corresdent of the Academy, dated December 21, 1849, desiring to be sidered as a *Member* from that date.

January 15*th*.

Dr. MORTON, President, in the Chair.

Dr. Morton read a continuation of his paper on the size of the in in the various races of Man, which was referred to the Comtee on the previous portions.

He then followed with some remarks on the volume of the brain in savage tribes, which he stated to be greater than in the half ilized races of Mexico and Peru. He mentioned some facts proving antiquity of the characteristics of the several groups of the human e, and exhibited some plates from the forthcoming work of Dr. sius, representing purely Egyptian forms copied from bas-reliefs ombs at the base of the great Pyramid, dating back 3400 years ore Christ. Also some copies of pictures in temples more than 0 years later, still exhibiting the same well marked characters of the race: the greater the antiquity, the more decided were these characters.

Dr. Morton thought that it would be now admitted that at the earliest period known, the groups of the human family presented as great diversity as at present. The Egyptian crania in his collection, taken from the identical tombs referred to, at the base of the great Pyramid, as well as those from Thebes and Memphis, when compared with the figures in Dr. Lepsius' plates, exhibited a most marked resemblance. The Egyptian tombs, although occupied by successive families, still contained the original occupants, and in all places presented skulls possessing the same peculiarities of type. The modern Egyptian Fellahs are the old Egyptians crossed with the Arabs. The skull of the old Egyptian cannot be confounded with that of any other race.

January 22d.

Dr. Morton, President, in the Chair.

Mr. Conrad read a paper, intended for publication in the Journal, entitled, "Descriptions of eight new species of Eocene Shells." Referred to Mr. Phillips, Dr. Griffith and Dr. Wilson.

A paper by Mr. Peter A. Browne, entitled "Examination and descriptions of the tegumentary appendages of the Ornithorynchus paradoxus," was read and referred to Mr. Phillips, Dr. Morton and Mr. Cassin.

Dr. Morton having resigned the Chair to Dr. Ruschenberger, made some remarks supplementary to those offered at the last meeting, and also in continuation of the subject of his Memoir on the size of the Brain in Man.

January 29th.

Mr. Phillips in the Chair.

The Publication Committee announced that Part 4, Vol. 1, New Series of the Journal, would be ready for distribution at the next meeting, February 5th, 1850.

The Society, after the transaction of some other business, then proceeded to an election for Standing Committees for the ensuing year, with the following result:—

COMMITTEES FOR 1850.

Ethnology.

S. G. Morton, J. S. Phillips,
Charles Pickering.

Comparative Anatomy and General Zoology.

Joseph Leidy, S. G. Morton,
Edward Hallowell.

Mammalogy.

J. S. Phillips, Joseph Leidy,
Samuel W. Woodhouse.

Ornithology.

Edward Harris, John Cassin,
John K. Townsend.

Herpetology and Ichthyology.

E. Hallowell, R. E. Griffith,
John Cooke.

Conchology.

R. E. Griffith, T. A. Conrad,
Henry C. Lea.

Entomology and Crustacea.

S. S. Haldeman, R. Bridges,
Wm. S. Zantzinger.

Botany.

R. Bridges, Wm. S. Zantzinger,
Gavin Watson.

Palæontology.

T. A. Conrad, Richard C. Taylor,
Thomas B. Wilson.

Geology and Mineralogy.

J. Price Wetherill, Samuel Ashmead,
Wm. S. Vaux.

Physics.

Thomas C. Percival, Samuel Powel,
Robert Kilvington.

Library.

Robert Bridges, Thomas B. Wilson,
John Lambert.

Committee on Proceedings.

S. G. Morton, Wm. S. Zantzinger,
Joseph Leidy.

The Treasurer of the Publication Committee read the Annual Report, which was adopted.

The Auditors reported that the Treasurer's account for 1849 had been examined by them, and found correct.

The Committee to which was referred Mr. Conrad's paper, describing eight new species of Eocene fossils, reported in favor of its publication in the Journal.

The following resolution, offered by Dr. Bridges, was adopted:

Resolved, That the resolution, passed June 29th, 1847, allowing the Publication Committee to supply subscribers to the Journal with the Proceedings gratis, be rescinded.

On motion of Mr. Vaux, it was

Resolved, That the Publication Committee be authorised to present Vol. 1, New Series of the Journal, to the Royal Historical and Geographical Society of Rio Janeiro.

ELECTION.

Francis N. Buck, Esq., of Philadelphia, was elected a *Member;* and the Chevalier Manoel Ferreira Lagos, of Rio Janeiro, was elected a *Correspondent* of the Academy.

February 5th.

Dr. Morton, President, in the Chair.

Letters were read:

From the Secretary of the Linnean Society, of London, acknowledging the receipt of Part 3, Vol. 1, New Series of the Journal.

From the Principal Librarian of the British Museum, returning acknowledgments for Nos. 9 and 10, Vol. 4, of the Proceedings.

From the Corresponding Secretary of the National Institute at Washington, acknowledging the receipt of Nos. 9, 10, and 11, Vol. 4, of Proceedings.

Dr. Morton, in confirmation of some remarks made on several previous occasions, on the characteristic conformation of the Egyptian cranium, exhibited several skulls from his collection, taken from tombs dating upwards of 3000 years before the Christian Era. These skulls showed a remarkable delicacy of structure of the whole cranio-facial region; the cranium being of an elongated oval form, the facial angle averaging 78°, and the internal capacity 80 cubic inches; in the last respect corresponding to the modern Fellah of the Nile.

The expression of the bones of the face of the ancient Egyptian is neither European nor Asiatic, but peculiar, *sui generis*. The Arab-Egyptian, or Fellah of the present day, is the Arab engrafted on the Ancient Egyptian, and dates from the sixth century of our Era. All the Coptic heads of the present period have some negro characters: they are those of the population of the towns which are notoriously licentious. The Fellahs, or rural population, are free from this taint.

February 12*th.*

Dr. Morton, President, in the Chair.

Dr. Leidy read the following, being a report by Prof. Haldeman, Chairman of the Committee on Entomology, on the progress of that science during the past year.

Report on the Progress of Entomology in the United States during the year 1849.

By S. S. Haldeman.

Whilst the progress of Entomology during the year 1849 has been sufficiently encouraging, it cannot be doubted that it would advance more rapidly if there were one or more general works upon the subject, adapted to this country. The student is now retarded either by the extent of the subject, or because he cannot consult standard collections, works, or figures of American genera and species; whilst such as have passed through the preliminary difficulties, generally prefer original research to the preparation of works which partake in some degree of the nature of compilations; and on account of the expense of figures, authors usually limit them to their own discoveries.

Another cause which retards the natural sciences in general, in a country where the amount of material to be investigated is extensive, is the want of instruction in them in our educational institutions, in but few of which their claims to a place among the sciences are acknowledged. Such causes tend to limit the number of observers, and must be taken into consideration in estimating the condition of certain sciences in this country.

1. J. L. LeConte M.D. *Synopsis of the Coleopterous Insects of the group Cleridae* which inhabit the United States. 28 pages 8vo. Annals of the Lyceum of N. Y. This synopsis, besides a full synonymy, contains the characters of ten new species. Many of the American species are figured in a very neat and beautiful style in Spinola's Essai monographique sur les Clerites, the last work of this active entomologist.

2. Dr. LeConte has also produced a *Catalogue of Coleoptera*, including diagnoses of a considerable number of new species, collected in a journey to Lake Superior with Prof. Agassiz and his companions. On the point of publication.

3. ——— On the Pselaphidae of the United States. Bost. J. nat. hist. 1849. vol. 6. p. 64—110.

4. ——— General Remarks on the Coleoptera of Lake Superior. In Agassiz Excursion. P. 201—242. 8vo.

5. S. S. Haldeman. *Cryptocephalinarum Boreali-americae diagnoses*, etc. J Acad. nat. sci. 1,245. 20 pages 4to. The synonymy and full descriptions of the species known to the author are given. Short diagnoses of the 21 new species are given in the Proceed. Acad. for April, 1849; 4,170.

6. ——— *New Hymenoptera of the genera Ampulex, Sigalphus, Chelonus, and Dorylus.* Pr. Acad. 4,203.

7. ——— *On the larva of Physocoelus* inflatus, *Dej.* (Helops contractus *Mels.* 1846. Pr. Ac. 3,61. H. contractus *Beauv.* H. striatus Oliv.?) Read before the

Am. Assoc., of the proceedings of which various reports were made. This larva is much like that of Tenebrio, but the mandibles differ somewhat, and the anal segment is truncated in a slope, the surface of the truncation being cupshaped.

8. ——— *History of Phalangopsis*, a genus of Orthoptera, with three new species, two of which form a subgenus. Am. Assoc.

9. M. A. Morris who has carefully studied the genus Cecidomyia, has announced a new species (Pr. Acad. 4,194) named C. culmicola, from its habit of living within the stem of the grain.

10. J. W. Dawson Esqr. of Pictou, Nova scotia, has announced the appearance of the European *Cecidomyia tritici* in that province. Pr. Acad. 4,210.

11. T. S. Savage M.D. has given some valuable details (Pr. Acad. 4,194) relative to the economy of the *driver ants* of Africa, hitherto regarded as a distinct genus under the name of Anomma; but the observations of Dr. S. show that they are neuters of the genus Dorylus.

12. ——— .The same observer furnishes a full account of the habits of *Termes fatalis*, extending to ten closely printed pages. Pr. Acad. 4,211.

13. Jos. Leidy M.D. has an anatomical paper on the odoriferous glands in the Invertebrata, illustrated with a plate. Pr. Acad. 4,234.

14. ——— The same author has a paper on Entophyta, and new Entozoa, in the Articulata. id.

15. *Prof. L. Agassiz* announced at the last meeting of the American Association that the respiratory tracheae of insects terminate in an enlargement or sac which may be considered minute lungs. The circulatory or fluid-bearing tracheae terminate in minute threads.

16. Asa Fitch M.D. The second Annual Report of the Regents of the university of N. Y. on the condition of the State cabinet of Natural history (Albany, 1849) contains a catalogue by Dr Fitch, of about 350 species of insects, mostly Coleoptera, intended to form the nucleus of a collection in a department which had been previously neglected in forming the cabinet, and preparing the zoology of the State.

17. During the year, *Economic entomology* has been enriched by the discovery by Miss Morris, of a new destroyer of the peach tree, which proves to be the *Tomicus liminaris* of Say. It wounds the bark by boring through it and feeding upon the living portion. I have found another bark borer (*Hylesinus aculeatus* Say) feeding upon the inner living bark of the white ash, *Fraxinus* acuminata. Miss Morris has communicated to me a curculionid, the *Baris tripunctatus* of Say, which a friend of hers discovered to be one of the destroyers of the potato, in the stem of which the larva bores passages and undergoes its transformations.

The Crustacea have been enriched during the past year by the elaborate and valuable papers of Prof. Dana.

18. J. D. Dana. *Synopsis of the family Gammaracea.* Am. J. Sci. 8,135—140 (and 428) including characters of the families, subfamilies and genera. Five new genera are given.

19. ——— *Conspectus Crustaceorum quae in Orbis Terrarum Circumnavigatione, Carolo Wilkes e Classe Reipublicae Foederatae Duce, lexit et descripsit Jacobus D. Dana.* Proceed. Am. Acad. Boston 1,150—154, and 2,9—61. Am. J. Sci. 8,276—285. This paper contains a revision of the generic characters of

the *Entomostraca*, and includes 18 new genera and the names of 183 new species, to be published in the volumes of the Exploring expedition. The continuation, Am. J. Sci. 8,424—428, is devoted to the *Isopoda* and contains five new genera and characters of eleven new species.

20. L. R. GIBBES. Tuomey's Report on the Geology of South Carolina, Columbia, 1848 (distributed in 1849) contains a "Catalogue of the Fauna of South Carolina" in which there is an excellent catalogue of the *Crustacea* by Prof. Gibbes of Charleston.

A paper was read from Mr. Conrad, describing new species of fresh water shells from Arkansas and from Australia, and referred to a committee, consisting of Mr. Phillips, Dr. Wilson and Dr. Griffith.

Dr. Leidy offered the following remarks:

Dr. Leidy stated it was now eighteen months since he had sought for Entophyta within living animals, having been previously impressed with the belief of their existence upon reflecting upon the essential conditions of life. Four months since he exhibited to the Academy numerous drawings, and specimens of entophyta obtained from living animals; he now exhibited others.

The essential conditions of Life are five in number, viz., a germ, nutritive matter, air, water, and heat. The four latter undoubtedly exist in the interior of living animals, animal or entozoa germs also are well known to exist, and it was rendered extremely probable that vegetable germs would also exist, and with them all the conditions necessary to vegetable growth. Plants have been very frequently observed growing upon the exterior of animals and less freqeently upon the interior, most usually upon diseased surfaces, but the growth of such parasites had not been pointed out as a normal and common condition as in the case of entozoa.

Dr. L. next reviewed the theory of generation. He inclines to the opinion that sexual elements are absolutely necessary for the perpetuation of germs. He considers the alternation of generation in certain animals no objection to the law, for after successive developments an admixture of the sexual elements is observed to be necessary. The reproduction among Cryptogamia may probably often exhibit phenomena analogous to the alternation of generation of animals, but universally he thinks it will be discovered that a true sexual admixture takes place in every species of these plants at some period of their life. According to the observations of Schimper it is necessary among the mosses. From an observation made by Klencke, upon a fungus which grew upon a diseased surface, Dr. L. thinks that sexual admixture would be discovered to take place in the *mycelium*. In numerous instances it had been observed among the Algæ. He stated he thought he had noticed the process in Achyla prolifera, and gave a description of the phenomena. He finally considers that science is on the eve of demonstrating the existence of a law "that an admixture of sexual elements is necessary for the perpetuation of specific life germs."

He then exhibited numerous elaborate drawings of new entophyta observed growing in the ventriculus of Passalus cornutus, a remarkable one growing in a honey-like liquid in the proventriculus of the larva of Arctia Isabella, another from Acheta abbreviata, etc. He remarked that when such plants were found in animals they were usually very abundant.

Dr. L. then stated that very slight modifications in the five essential conditions of life were sufficient to produce the vast variety of living beings upon the globe. As an instance, he mentioned he had lying upon his table a saucer with a cork bottom, in which lay a partly dissected Passalus cornutus half immersed in water. Two days afterwards he noticed upon the part of the insect above the water a quantity of Mucor mucedo? growing, and from the part within the water numerous fine, stiff filaments, which upon examination proved to be Achyla prolifera; upon the cork around the insect grew a third genus, consisting of fine cottony filaments, which were articulated, of which he exhibited a drawing; and upon the insect at the surface of the water, but not within the latter, grew a fourth genus, of which he also exhibited a drawing.

He also stated he had had the good fortune of observing in a single morning all the stages of development of Achyla prolifera growing from some individuals of Ascarides which had been lying in a dish of water for a few days.

In reply to some remarks made by members, Dr. Leidy said he could not admit the doctrine of spontaneous generation, but rather thought modifications in the essential conditions of life favorable to the development of different, and always pre-existing germs derived from a parent.

February 19*th.*

Dr. Morton, President, in the Chair.

A letter was read from Mr. J. T. Becker, dated Paris, 10th December, 1849, proposing exchanges with the Academy in Entomology. Referred to the Committee on Entomology.

Also a letter from H. Lecog, dated Clermon-ferrand, January 10, 1850, proposing exchanges in Conchology with the Academy, or with individual members of the Society. Referred to the Committee on Conchology.

Dr. Leidy offered the following observations:

Dr. Leidy presented to the examination of the Society a colored and several other drawings of what he termed an entophytic forest, taken from a portion of the mucous membrane of the ventriculus of Passalus cornutus. He remarked that at least six species of entophyta were found growing upon the mucous membrane of the ventriculus of P. cornutus, which were often present in great quantity, frequently some thousands, and which from their number, polymorphous appearance of several species, and attachment to various appendages of the mucous membrane, resembled very strikingly a miniature Brazilian forest, which was heightened in some degree by the existence of a nematoid worm, which recalled to mind the idea of one of the serpents of such a forest.

A somewhat similar drawing he exhibited, taken from the small intestine of Julus marginatus.

Other drawings were also presented. Dr. L. stated that among his collection of living Julides, he had a number of times observed individuals to become dull in color, and become almost motionless, which phenomena were followed by the death of the animal. It occurred to him that, in such a state, there might be exhibited some change in the character of its entophyta, as usually found in the active condition of the animal. Upon removing the intestine of an individual which had just died, he noticed that the entozoa which usually occupied the small intestine, had passed into the rectum, and upon the surface of the mucous membrane of the former, was developed a new plant. This is an oblate spheroidal body, white in color, translucent, embossed upon the surface, and presenting, when viewed by transmitted light, some resemblance to a minute bleached shell of an Echinus; by reflected light, it resembled a minute, white Lycoperdon. This plant was strewed all over the mucous membrane, but grew in greatest quantity along the course of filaments of Enterobrus, which appeared attached to the mucous membrane throughout their length by it. When compressed it opened, and spread into several leaf-like segments, and exuded a clear fluid with faint granules. He thought that probably this plant might be another stage in the existence of Enterobrus, for in the large number of individuals of Julus which he had examined, upwards of 130, although he had observed the development of Enterobrus from spore-like bodies, even to the formation of what he supposed to be the sporangia, yet he had never been able to detect the formation of spores, and when he saw this new plant enveloping the Enterobrus filaments, he suspected that there might be a phenomenon here presented analogous to the alternation of generation in certain animals, but had not yet satisfied himself that such was the case.

He also stated he had discovered a fourth species of Enterobrus in Polydesmus virginiensis, and another entophyte analogous to Enterobrus growing in Polydesmus granulatus. The latter differs from Enterobrus in having numerous globular cells at the free extremity of the principal cell. He adverted to the several theories of cell formation, and said that in the last mentioned plant, in the development of the globular terminal cells, the division of the permanent cell wall followed the division of the cell contents. In conclusion, he observed, that these matters would be more fully treated of hereafter, in a memoir which he was preparing on the subject.

February 26th.

Dr. Morton, President, in the Chair.

The Committee on Conchology presented a report, recommending that M. Lecoq's proposition, for an exchange of shells, be declined. Adopted.

The Committee on Mr. Conrad's paper, read February 12th, 1850, reported in favor of publication in the Proceedings.

*Descriptions of new species of fresh water Shells.**

By T. A. Conrad.

UNIO.

U. cultelliformis. Oblong, compressed, thin posteriorly, slightly thickened anteriorly, contracted obliquely from beak to base; umbonal slope rounded, ventricose; ligament and basal margins parallel; posterior margin slightly contracted, oblique; extremity rather obtusely rounded; basal margin nearly straight or slightly contracted; epidermis olive-brown with strong concentric lines; within bluish-white; cardinal teeth oblique, compressed, disposed to be double in each valve; lateral teeth compressed, slightly arched. 2¾. 1½.

Local. Bogan river, Australia.

U. Napeanensis. Oblong-suboval; anterior margin regularly rounded; posterior margin obtusely rounded and nearly direct, extremity acutely rounded, situated but little above the basal line; ligament and basal margins parallel; basal margin slightly contracted; disk contracted obliquely from beak to base; umbo with irregular angulated wrinkled plicæ concentrically arranged; epidermis blackish-brown, obscurely rayed towards the base; within bluish-white, with wax-colored stains; cardinal teeth compressed, disposed to be double in each valve. 1½. 1¼.

Local. Napean river, Australia.

U. Balonnensis. Suboval or somewhat trapezoidal; disk contracted from beak to base; posterior side inflated; posterior margin obliquely truncated, extremity acutely rounded and much above the line of the base; ligament and basal margins parallel; basal margin nearly straight in the middle; umbonal slope rounded; posterior submargin with transverse wrinkled lines; epidermis olivaceous, strongly lined concentrically; within white; lateral teeth compressed; cardinal teeth elongated, compressed, very oblique, single in each valve, or slightly disposed to be double in the right valve.

Local. Balonne river, Australia.

The posterior slope in two specimens is furnished with transverse wrinkled prominent lines, but this does not appear to be a constant character of the species. 2¼. 1½.

U. Aberti. Suboval, much compressed, contracted from beak to base; posterior margin truncated, direct; basal margin contracted posteriorly; beaks submedial; umbonal slope prominent or ridged, rounded; middle of disk with irregular plicæ, running from umbo to base, becoming obsolete at base; posterior slope with wrinkled lines and small plicæ; epidermis olive-yellow, with small, very numerous green dots, and a few broad rather indistinct rays; within pale pink; cardinal teeth thick, direct. 1⅜. 1¾.

Local. Chambers' Ford, rapids of Verdigris river, Arkansas. Dr. Woodhouse.

Dedicated to Col. J. J. Abert.

PALUDINA.

P. sublineata. Ventricose-conoidal; subumbilicated; volutions 5, somewhat scalariform, ventricose; epidermis olive, polished, with minute obsolete revolving lines; body whorl subcarinated in the middle; aperture suboval. [illegible]. [illegible].

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* Received by the Academy in exchange from the Australian Museum.

Local. Darling river, Australia.

PHYSA.

P. pectorosa. Subovate; volutions 4 or 5; spire short; apex eroded; penultimate whorl ventricose; columella with a prominent, compressed, triangular, oblique tooth or fold; epidermis olivaceous, clouded with brown. [illegible]. [illegible].

Local. Bogan river, Australia.

P. Australiana. Elliptical, thin, diaphanous; volutions 4 or 5, regularly convex; spire short; epidermis amber-colored; columella with a slender prominent fold, which revolves within to the apex; margin of labrum regularly curved or rounded. [illegible]. [illegible].

Local. Bogan river, Australia.

MELANIA.

M. tetrica. Turreted; volutions 9, with oblique angular ribs, crossed by sharp prominent lines, giving the ribs an acutely tuberculated character; whorls of spire angulated above the middle, and destitute of revolving lines above the angle; ribs on body whorl not continued to the middle of the volution; the revolving lines about 12 in number; 4 on the penultimate volution; aperture ovate-acute, slightly oblique. 1.

Local. Rivers of Australia.

M. Balonnensis. Ovate-elongate, thin, diaphanous; volutions 6, those of the spire angulated, obliquely ribbed; revolving lines distinct, but little prominent; the ribs on body whorl short; aperture elliptical, nearly half the length of the shell; epidermis pale straw-color, with unequal spots of reddish-brown. [illegible].

Local. Balonne river, Australia.

LYMNEA.

L. perlevis. Ovate, thin and fragile, pellucid; volutions 5; spire very short, the whorls convex; body whorl slightly flattened on the side and also near the suture; epidermis straw-colored; columella with a prominent slender very oblique fold revolving within to the apex; aperture large, patulous, ovate, regularly rounded at base.

Local. Salamanca and Balonne rivers, Australia.

The following resolution was adopted:

Resolved, That in future, visitors will not be admitted to the Museum on other than public days, (Tuesdays and Fridays,) unless accompanied by a member of the Society.

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ELECTION.

Mr. Samuel M. Fox, of Philadelphia, was elected a *Member* of the Academy.

DONATIONS TO MUSEUM

In January and February, 1850.

January 1st.

Mounted specimen of Bradypus tridactylus, and a specimen of Diodon. From Dr. Wilson.

Fine specimen of Python Javanicus ?, from Hong Kong, China. From Mr. Sandwith Drinker.

Fifty-six specimens, in skin, of North American Mammalia, collected by Dr. J. K. Townsend in Oregon and the Rocky Mountains, and presented by him to the Academy, viz.:

Meles Labradorica, Lepus Townsendii (2 spec.), L. Nuttalii, L. Artemesia (3 spec.), Lagomys princeps, Spermophilus Douglasii (4 spec.), S. Richardsonii (2 spec.), S. Franklinii, S. tridecimlineatus, Tamias Townsendii (3 spec.), T. grandivittatus (3 spec.), T. minimus (2 spec.), Meriones Americanus, Mus cercopus, Scalops Townsendii (2 spec.) Neotoma Drummondii (3 spec.), Sciurus Douglasii (3 spec.) S. Richardsonii, S. lanuginosus, S. Fremontii, Pteromys oregonensis, P. salerinus, Mustela erminea, Pseudostoma Richardsonii, P. borealis, P. Townsendii (Rich.), P. bursarius, Plerotus Townsendii, Vespertilio subulatus, Say (3 spec.), V. ——, Arvicola oregoni, Canis —— ? (or great Oregon Wolf) (2 spec.), Canis —— ? (lesser Oregon Wolf), Canis —— ? (least Oregon Wolf), Lynx canadensis ?, Cervus leucurus.

January 8th.

Native Alum, from Ohio; the same, from Italy: Botyroidal Manganese, from Germany; Pink Scapolite, Spodumene, Petalite, from Massachusetts; Fossil wood, from Virginia. Presented by Dr. Joseph Leidy.

Two Saurian Vertebræ, from the marl of Burlington Co., New Jersey. From Dr. Charles T. Budd.

Emerylite, a new mineral, from Chester Co., Pennsylvania. From Mr. Theodore F. Seal.

January 22d.

Living specimen of Testudo carbonaria, from Puerto Cabello. From Dr. Charles D. Meigs.

February 5th.

One hundred and sixty-five Skeletons (articulated) of Birds, of the following genera:

Gallus; Plotus; Ardea, 3; Mergus; Rallus; Gallinula; Parra; Vanellus; Rusticola; Porphyrio; Ostralega; Bombycilla; Alcedo, 3; Charadrius; Anthochæra; Pitta; Glareola; Falco, 3; Anas, 2; Procellaria, 2; Phalacrocorax; Picus, 3; Saurothera; Cryptonix; Pterocles; Bucco; Scops; Podargus; Psittacus, 10; Menura; Tanysiptera; Columba, 3; Œdicnemus; Cuculus, 3; Buceros, 2; Fratercula: Otis; Sterna; Lestris; Corvus; Podiceps, 2; Circus, 2; Caprimulgus; Turdus, 4: Ocypterus; Icterus, 2; Pomatorhinus; Loxia, 2; Platycercus; Bubutus; Fringilla, 3; Sitta; Emberiza; Ploceus, 2; Alauda; Motacilla, 3; Phyllornis, 2; Hirundo; Poöphila; Trogon; Strix; Eurylaimus, 3; Cypselus, 2; Psittacula; Lanius; Perdix, 2; Sylvia, 2; Sturnus, 2; Oriolus; Upupa; Nectarina; Diceum; Ceyx; Yunx, 2; Ibis; Glaucopis 2; Certhia, 2; Platalea; Polyborus; Bubo; Grus; Ciconia; Crax; Numenius; Sarcoramphus; Circaetus; Neophron; Todus; Merops, 4; Phœnicopterus; Trochilus, 5; Ixos; Psilopogon; Eudynamis; Garrulus; Lamprotornis; Malurus; Colaris; Crypsirhina; Myophonus; Graucalus; Timalia, 2; Irena, 2; Halcyon; Pastor; Edolius; Ceblephyrus; Vidua; Cardinalis; Aprosmictus.

Fifty-two Sterna of Birds, as follows:

Cygnus, 2; Pavo; Colymbus; Anser, 3; Haliaëtus; Porphyrio, 2; Milvus; Phasianus; Cacatua; Platycercus; Recurvirostra; Pandion, 2; Aquila; Falco; Gyps;

Buteo; Psittacus, 3; Hirundo, 2; Turdus, 2; Totanus; Mergus; Gallinula, 3; Alcedo, 2; Lestris, 2; Cypselus; Oriolus; Upupa; Ardea, 2; Otis; Platalea; Bubo; Ciconia; Crax; Uria, 3; Strix, 2.

Three Tracheæ of Birds: Kitta, Glareola, and Caprimulgus.

Ten Crania of Birds: Diomedia, 1; Rhamphastos, 2; Macrocercus, 1; Platalea, 2; Phœnicopterus, 1; Rhynchops, 1; Buceros, 1; Numenius, 1.

In all 230 species. From Dr. T. B. Wilson.

Eleven nests: six with ten eggs, two with two young each, and one with the female bird, of eleven species of Trochilus, from South America; three nests: two with three eggs, of three species of Orthotomus; from India. From Dr. T. B. Wilson.

Fruit of Banksia serrata. From Mr. Kilvington.

February 12th.

Sulphate of Baryta, with honey-colored Fluor, from Lake Superior. From Mr G. K. Smith.

DONATIONS TO LIBRARY

In January and February, 1850.

January 1st.

Recherches anatomiques et physiologiques sur l'organe de l'audition chez les Oiseaux. Par G. Breschet.

Dissertation sur la famille des Poissons Cyclostomes. Par A. M. Constant Dumeril.

Talpæ Europææ anatome ab F. G. J. Jacobs.

Ueber das Universum als Fortsetzung des Sinnensystems. Ein Pythagoräisches Fragment von Oken.

Dissertatio inauguralis circa partes genitales masculas Avium. Auctore G. G. Tannenberg.

Dr. G. G. Tannenberg's Abhandlung über die Männlichen Zeugungstheile der Vögel.

Dissertatio inauguralis sistens Limnei stagnalis anatomen. Edidit Salomo Steubel.

Anatomische Beschreibung einer monströsen, sechsfüssigen, Wasser-Frosches. Von D. J. Van Deen.

De organis motoriis Boæ caninæ dissert. inaug. ab F. L. Huebner.

De coloribus corporum naturalium præcipue animalium vegetabiliumque determinandis: comment. physiog. ab Dr. F. G. Hayne.

Samuelis Méches de respiratione Animalium commentatio.

Dissertatio anatomica de Helice pomatia. Auctore W. Wohnlich, M. D.

Batrachymyologia. Dissert. inaug. anatomico-physiologica myologiam Ranarum Thuringiëarum exhibens comparatum: Auctore J. C. Zeuker.

De Metamorphosi Rostri Pici et de generatione mucoris in organismo animale vivente. Ab C. F. Heusinger.

De animalculis infusoriis. Ab J. A. Lorent.

H. Rathke de Bopyro et Nereide commentationes anatomico-physiologicæ duæ.

Tabulæ (12) anatomiam Entozoorum illustrantæ: ab Eduardo Schmalz.

United States Exploring Expedition. Geology; by James D. Dana. 4to., and Atlas, folio.

Fauna littoralis Norvegiæ, von M. Sars. Liv. 1.

H. A. Wrisberg observationum de Animalibus infusoriis satura.

Versuch über die Schwimblasse der Fische: von G. Fischer.

Historia physiologica Ascaridium. Auctore M. Van Philsum, M. D. 8vo.

Lectures on the comparative Anatomy and Physiology of the invertebrate animals. By Richard Owen. 8vo.

Esperienze intorno alla generazione degl'Insetti fatte Da Francisco Redi. 4to.

Spicilegia adenologica. Auctore Philippus Seifert. 4to.

etria et Asymmetria organorum animalitatis, imprimis cranii. Dis-
auctore J. C. G. Lucæ. 4to.
or a natural history of animals. Folio.
pische Untersuchungen über des Hern Robert Brown Entdeckung
lbst im feuer unzerstörbarer Theilchen in allen Koerpern, und über
der Monaden; von C. A. S. Schultze. 4to.
Bloch's Abhandlung von der Erzeugung der Eingeweidewürmer und
wieder dieselben. 4to.
einer Naturgeschichte der Sinneswerkzeuze bei den Insecten und
Von F. J. Schelver. 8vo.
enogenesis, or the successive production of procreating individuals
le ovum. By Richard Owen. 8vo.
don Athenæum for November, 1849.
sche Beobachtungen der Saamenthierchen, durch die allerbesten Ver-
-Gläser und bequemlichsten Microscope betrachtet, &c.; von M. F.
: Versuch einer gründlichen Vertheidigung der Saamenthierchen;
Ledemüller, (in one vol. 4to.)
lser og Iagttagelser over nogle maerkelige aller nye i Haust ved den
kyst levende Dyr af Polypermes, Acalyphermes, &c., med en kort
er de hidtil af Forfatteren sammensteds fundne arter og deres Fore-
af H. Sars. 4to.
above presented by Dr. T. B. Wilson, on condition that they be not
the Hall.
of Cholera, with the sanitary measures adopted by the Board of
ing the epidemic in Philadelphia, in 1849. From the Board of Health.
tern Journal of Agriculture, Manufactures, General Literature, &c.
M. Tarver and T. F. Risk. Vol. 3. Nos. 1 and 2, 1849. The Editors.
raphia Imperii Rossici. Auctore G. Fischer de Waldheim. Vol. 4.
Rossica. 4to. The author.

January 8th.

on presented the following, on the usual condition :—
lans l'Inde par Victor Jacquemont pendant les années 1828–'32. 6 vols.

naturelle des Cephalopodes acetabuliferes vivants et fossiles par MM.
t D'Orbigny. 2 vols. folio.
ologia fossili des Terrains crétaces du bassin de l'Adour. Par le Dr.
4to.
du Voyage á la recherche de la Pérouse pendant les années 1791–'92.
yen Labillardière. 2 vols. 4to.
zungsgeschichte der gesammten Vögel. Von F. A. L. Thienemann.
.
phie Ornithologique, ou receuil de planches representant les coquilles
r Lamarck, Sowerby, &c. Par Polydore Roux. Liv. 1. 4to.
s recherches sur le Nautile flambé (Nautilus pompilius, Lam.) Par M.
iennes.
d'un voyage du Levant. Par M. Pitton de Tournefort. 2 vols. 4to.
dans les quatre principales iles des Mers d'Afrique. Par M. Bory de
t. 3 vols. 8vo. and atlas 4to.
de decouvertes aux Terres Australes. Redigé per Péron et continue
nis de Freycinet. 2d edition. 4 vols. 8vo. and atlas 4to.
s du Capt. Péron sur ses voyages. 2 vols. 8vo.
ion de Coquilles caracteristiques des Terrains par M. Deshayes. 8vo.
ogie, ou histoire naturelle des Insectes. Par M. Olivier. 4to. Vols.
(completing the copy in the Library of the Academy.)
Oken. No. 11, 1818.
naire universelle d'histoire naturelle. Dirigé par M. Chas. D'Orbigny.
vo.
ton presented the following, on condition that they be not taken from

Palæontologie Française. Par M. Alcide D'Orbigny. Terrains cretacés, livs. 1–138: Terrains jurassiques, livs. 1–51. 8vo.

Note sur des oeufs de Mollusques receuillis en Patagonie. Par M. Alcide D'Orbigny.

Considerations sur l'ensemble des Mollusques Gastéropodes des Terrains cretacés. Par M. D'Orbigny.

Considerations zoologiques, geologiqués, et géologies-géographiques sur les Ammonites du Terrain crétacé. Par M. D'Orbigny.

Mémoire sur des espèces et des genres nouveaux de l'ordre des Nudibranches obsérvees sur les cotés de France. Par M. D'Orbigny.

January 15th.

Casparis Bauhini Brasiliens Archiatri de lapidis Bezoaris oriental et occidental. 12mo.

Description generale, &c. de la colonie de Surinam. Par Philip Fermin, D. M. 2 vols. 8vo.

Catalogus Bibliothecæ historico-naturalis Josephi Banks. Auctore J. Dryander. 5 vols. 8vo.

Catalogues of the very select and valuable libraries of William Roscoe, Isaac Ambrose Eccles, and General Charles Vallencey.

Catalogue of the Library of the Athenæum, Liverpool, 1820. By George Burrell. 8vo.

Catalogue of the Library of the Royal College of Surgeons in London, 1843, 8vo.; of a collection of Books on Natural History, by W. Wood of London, 1832, 8vo.; the same for 1840; of the Library of the Linnean Society of London. 8vo. 1827.

Bibliotheca Londinensis: a classified index to the literature of Great Britain during thirty years. 8vo.: and supplement to the same from 1846 to 1849. 8vo.

Bibliotheca regni animalis atque Lapidei, conscripta et edita a Laurento T. Gronovio. 4to.

Discours de M. Alfred Malherbe à l'Academie Nationale de Metz de 14 Mai, 1848.

De Lapicidinæ microcosmic: auctore J. C. Hoffmanus. 4to.

Hints to assist the enquiries of visitors: being brief notices of local antiquities in Southampton and its vicinity. By John Buller.

A letter to the Earl of Ellesmere, on the management of the Library of printed books in the British Museum.

D. Jacob Schæfferi Entwurf einer allgemeinen Farbenverein.

The above were presented by Dr. Wilson on the usual condition.

The voyages and travels of the Ambassadors sent by the Duke of Holstein to the Grand Duke of Muscovy and the King of Persia. By Adam Oleareus; rendered into English by John Davies. Folio. From Dr. S. G. Morton.

Illustrations of the Geology of Sussex. By Gideon Mantell. 4to. From the same.

Ueber die fossilen Säugethiere welche in Würtemberg in verscheidenen Formationen aufgefunden worden sind von Dr. G. F. Jäger. Nor. 1 and 2. Folio. From the same.

Conspectus Crustaceorum quæ in orbis Terrarum circumnavigatione C. Wilkes e classe Reipublicæ Federatæ duce, lexit et descripsit J. D. Dana. Isopoda No. 1. Schizopoda No. 1. From the author.

Annals of the Lyceum of Natural History of New York. Vol. 5. No. 1. Fro[illegible] the Lyceum.

Descriptions of two species of Distoma, with the partial history of one [illegible] them. By Joseph Leidy, M. D. From the author.

January 22d.

System der Physiologie. Von C. G. Carus: 2 vols. 8vo. From J. Lambert.

Archiv skandinavischer Beiträge zur Naturgeschichte. Von C. F. Hornschuch. Part 1. Nos. 1 and 2. 8vo. From Dr. Morton.

On Entophyta in living animals. New species of Entozoa. On Glandulæ odoriferæ. By Joseph Leidy, M. D. From the Author.

Notes of a military reconnoisance from Fort Leavenworth in Missouri, to San Diego in California. By Lieut. Col. W. H. Emory. 8vo. From Col. J. J. Abert.

February 5th.

Memoirs of the American Academy of Arts and Sciences. Vol. 4, New Series. Part 1. 4to. From the Academy.

Journal of the Academy of Natural Sciences of Philadelphia. Vol. 1, new series. Part 4. 4to. From the Publication Committee.

Observations on the prevention of Phthisis, and its proper treatment in the early stage, with cases illustrating its natural history. By Edward Hallowell, M. D. From the author.

Three lectures preliminary to a course on the principles and practice of Surgery, delivered Oct., 1849, at the University of Pennsylvania. By William Gibson, M. D. From the author.

Dr. Wilson presented the following on the usual condition:—

Voyage en Abyssinie execute pendant les années 1839–'43 par une commission scientifique. Publié sous la direction de M. Lefebvre. Atlas, livs. 22–'26, folio.

Voyage au Pole Sud et dans l'Oceanie sur les Corvettes l'Astrolabe et Zelée en 1837–'40. Atlas, Anthropologie liv. 10, Zoologie livs. 25 et 26, Botanique livs. 10 et 12, Geologie et Mineralogie 3 livs., folio. Texte, Hist. du voyage tome 10, Geologie et Mineral., tome 1. 8vo.

Voyage scientifique dans l'Altai Oriental et les parties adjuvantes de la frontiere de Chine, par Pierre de Tchihatcboff. 2 vols. 4to.

Histoire naturelle des Iles Canaries. Par MM. Webb et Bertholet. 28 livs. 4to.

Comptes rendus. Nos. 14–22, tome 29, et index du tome 28.

Annales de la Société Entomologique de France. Nos. 1 et 2, 1849.

Revue et Magasin de Zoologie. Nos. 9 et 10, 1849.

Traités trés rares concernant l'histoire naturelle et les Arts. 8vo.

Ostéographie, ou descriptions iconographiques comparées de Squelette et system dentaire des cinq classes d'animaux vertebrés vivants et fossiles, pour servir de base à la Zoologie et à la Geologie: Par H. M. Ducrotay de Blainville. Texte 4to, fascic. 1–23; planches, folio. fascic. 1–23.

Voyage dans la Russie Méridionale et la Crimée, executé en 1837 sous la direction de M. de Demidoff. Texte 8vo. tomes 4: planches folio, tomes 2.

Voyage Pittoresque et Achæologique en Russie, executé par M. de Demidoff, folio.

Monographie de la famille des Hirudinées. Par A. Moquin-tendon. 8vo. and atlas 8vo.

Bibliotheque universelle des voyages. Par Boucher de la Richarderie. 6 vols. 8vo.

Exploration scientifique de l'Algerie pendant las années 1840, '41 et '42; Mollusques par M. Deshayes, livs. 23, 24, 25; Animaux articulés par H. Lucas, livs. 25, 26. Supplement. liv. 4to.

Receuil de Memoires et des Notes sur les especes inédités ou peu connus de Mollusques, de Vers, et de Zoophytes. Par F. M. Daudin.

Histoire des Mollusques observées dans le Departement de la Sarthe. Par F. G. Goupil.

Traité élémentaire de Conchyliologie. Par G. P. Deshayes. Livs. 10, 11, 12. 8vo.

Note sur la Seiche de six pattes, (Sepia hexapodia de Molina,) Par M. de Ferussac.

Catalogue de la collection de coquilles formée par le Baron de Ferussac.

Essai sur les Mollusques du Departement du Gras. Par M. l'Abbe D. Dupuy. 8vo.

Catalogue générale des livres composant les Bibliothéques du Departement de la Marine et des Colonies. 6 vols. 8vo.

Monographie de Mammalogie ou déscription des Mammiféres dans les differens Musées de l'Europe. Par C. L. Temminck. 2 vols. 4to.

Description des Mollusques de France, et particuliérement de Department de L'Isére. Par M. Albin Gras.

Systéme des animaux sans vertebrés. Par J. B. Lamarck. 1me. edition. 8vo.

Histoire naturelle et mythologique de l'Ibis, par Jules Cæsar Savigny: Journal du dernier voyage de Dolomier dans les Alpes, par T. C. Brum-Neergaard, (in one vol. 8vo.)

Tableau élémentaire de l'histoire naturelle des Animaux. Par G. Cuvier. 8vo.

Considerations generales sur la classe des Crustacés. Par Anselm-Gœten Desmarest. 8vo.

Traité élémentaire de Zoologie, ou histoire naturelle du regne animal. Par F. A. Pouchet. 8vo.

Voyage autour du Caucase. Par F. Dubois de Montpéreux. 6 vols. 8vo.

Considérations générales sur l'Ichthiologie. Par H. Cloquet. 8vo.

February 12*th.*

The London Athenæum for Dec. 1849. From Dr. Wilson.

Contributions to Conchology. No. 4. By C. B. Adams. From the author.

Twenty-eighth Report of the Leeds Literary and Philosophical Society, 1847-'48. From the Society.

Report of the Proceedings of the Geological and Polytechnic Society of the West Riding of Yorkshire, 1848. From the Society.

February 19*th.*

Annual Report of the Trustees of the State Library of New York, January 15, 1850. From the Trustees.

Celestial Wonders and Philosophy. By Prof. Rafinesque. 8vo. From Dr. Morton.

Indice d'Ittiologia Siciliana: del Sig. C. S. Rafinesque. 8vo. From the same.

Caratteri di alcuni nuovi generi e nuovi specie di animali e Pianti della Sicilia. Del Sig. C. S. Rafinesque. 8vo. From the same.

Nouveau manuel d'Anatomie comparée par MM. de Siebold et Stannius, traduit de l'Allemand par MM. Spring et Lacordaire. 2 vols. 12mo. From M. Lacordaire.

Gleanings from the Menagerie and Aviary at Knowsly Hall. Part 1. Folio. From Mr. J. E. Gray.

Ornithology of the United States. The descriptive part by J. K. Townsend. Nos. 1 and 2. 8vo. From Mr. Cassin.

Essai d'une nouvelle maniére de grouper les genres et les éspeces de l'ordre de Passereaux. Par M. La Fresnaye. From M. O. Des Murs.

Catalogo di Uccelli Messicani e Peruviani di Carlo L. Bonaparte, Principe di Musignano. From the same.

Notice sur le Papyrus. Par M. Alfred Malherbe. From the author.

Du role des Oiseaux chez les anciens et chez les modernes. Par Alfred Malherbe. From the author.

The American Journal of Science and Arts. Second series. No. 25. January, 1850. From the editors.

Dr. Wilson presented the following, on the usual condition:

The Natural History of Birds. 3 vols. 8vo.

Manual of British Ornithology. By Wm. Macgillivray. 2 vols. 8vo.

American Ornithology. By Alexander Wilson and Charles L. Bonaparte. Edited by Robert Jameson. 4 vols. 12mo.

The History of Singing Birds; translated from the French of Count de Buffon. 12mo.

The Book of Parrots. By Sir T. Dick Lander and Capt. Thomas Brown. 12mo.

Traité élémentaire d'Ornithologie. Par M. Mouton-Fontenille. 2 vols. 8vo.

Beiträge zur Vogelkunde in vollständigen Beschreibungen mehrerer neuentdeckter und vieler seltener, oder nicht gehörig beobachteter deutscher Vögel. Von C. L. Brehm. 3 vols. 8vo.

Ornithological rambles in Sussex. By A. E. Knox. 8vo.

Manuel d'Ornithologie, ou tableau systematique des Oiseaux qui se trouvent en Europe. Par C. J. Temminck. 8vo.

Historia naturalis Orcadensis. Zoology. Part 1. 8vo. By W. P. Baikie, M.D. and Robert Heddle.

J. T. Klein Historiæ Avium prodromus. 4to.

Essai sur l'histoire naturelle des Oiseaux du Departement de deux Sevres. Par le Dr. J. L. M. Guillemeau. 8vo.

Ornithologie Européene. Par C. D. Degland. 2 vols. 8vo.

The Song Birds of Great Britain. By John Cotton. 8vo.

Deutschlands Fauna, oder praktisch gemeinnutzliche Naturgeschichte der Thiere des Inlandes mit naturgetreuen Abbildungen aller Arten. Von C. G. L. Reichenbach. 8vo.

Ornithologie Provençale. Par Polydore Roux. Atlas du tome 1^me^.

Synopsis of British Birds. By John Walcott, Esq. 2 vols. 4to.

Europäische Fauna, oder Naturgeschichte der Europäischen Thiere. Von J. F. E. Goeze. 10 vols. 8vo.

Svenska Foglar efter naturer och pa Sten artade af M. och W. von Wright. 4to.

Die Eier der Vögel Deutschlands und der benachbarten Länder in naturgetreuen Abbildungen und Beschreibungen nebst einer tabellarischen Uebersicht der Naturgeschichte der hier vorkommenden Vögel. Von J. F. Naumann und Dr. C. A. Bahle. 5 nos. 4to.

A letter to Mark Milbank, of the county of Cork, descriptive of the characters of the Whistling Swan.

Ger. Nicolai Heerkens Groningani Aves Frisicæ. 8vo.

Musæum Ornithologicum; exhibens enumerationem et descriptionem Avium quas nova prorsus ratione sibi paratas in Museo suo asservat D. J. C. Schaffer. 4to.

Uccelliera overo discorso della natura e proprieta di diversi uccelli e in partecolare di que che cantano, con il modo di prendergli, conoscergli, alleuargli, e mantinergli. Opera di Gio. Pietro Olina. 4to.

Over eene nieuwe soort van duif van de Kust Van Guinea, Columba (Peristera) puella. Door H. Schlegel.

Observations sur le sousgenre des Poriellots (Ficedula) et notamment sur le P. lusciniole, Sylvia (P.) polyglotta Viel. Par H. Schlegel.

Vorstellung der Vogel in Deutschlands und beilaufig nach einiger fremden nach ihren Gegenschaften beschrieben von J. L. Frisch. Folio.

Blicke uber das Menschliche Wissen in der Naturkunde.

Ornithologischer Atlas der Aussereuropäischen Vögel. Von H. C. Küster. Nos. 16 and 17.

Migratory Birds, or such as visit Britain at different seasons of the year.

Note des Oiseaux doubles et de quelques autres objets d'histoire naturelle offerts en èchange du cabinet de C. J. Temminck.

A discourse on the emigration of British Birds; by a Naturalist. A new treatise on the art of grafting and inoculation. (in one vol. 8vo.)

A history of the rarer species of British Birds. By T. C. Eyton. Parts 1, 2, 3. 8vo.

D. Jacob C. Schæffer's Abbildung und Beschreibung des Mayenwurmkäfers.

Idee zu einer systematischen Oryktozoologie oder über verändert und unverandert ausgegrabene Thiere entworfen. Von Dr. E. Eichwald.

Rhea. Zeitschrift fur die gesammte Ornithologie. Von Dr. F. A. L. Thienemann. Part 1. 8vo.

Fossil Fish in the collection of the Earl of Enniskillen and Sir Philip Egerton.

Lezione Accademica intorno all' origine delle Fontani, a Luigi F. Marsilli. 4to.

March 5th.

Dr. Elwyn in the Chair.

A communication was read from the American Philosophical Society, dated March 2d, 1850, acknowledging the receipt of Part 4, Vol. 1, of the Journal of the Academy.

A letter from H. W. Ravenel, Esq., dated Black Oak, South Carolina, Feb. 26th, 1850, stating his intention to forward without delay a package of South Carolina plants for the Academy, and making inquiries respecting exchanges. Referred to the Botanical Committee.

Dr. Morton presented the following letter from Elliot Cresson, Esq., of Philadelphia, addressed to the members of the Academy, dated March 5th.

"It will doubtless be gratifying to you to learn that the attention of scientific men is turned, with deep interest, upon the long neglected continent of Africa: and it is equally due to you and to the distinguished gentlemen who have made so liberal an offer, to state that Hon. John Short, of Cincinnati, and Professor Charles Short, of Louisville, have most munificently offered to bear all the expense of a botanical mission to Africa, provided a person of proper zeal and other qualifications can be obtained for the service. Professor Christy, of Oxford, Ohio, has also expressed to us his wish to make a geological survey of Africa."

The letter was, on motion, referred to the Zoological Committee.

The following, from the same, was also read.

Extract from a letter from Senator Stephen A. Benson to Elliott Cresson, dated Bassa Cove, Republic of Liberia, October 28th, 1849.

"I had almost forgotten to tender you my thanks for the pamphlet forwarded to me, containing some observations on the Hippopotamus Liberiensis. This animal inhabits all the larger rivers of Liberia, and I have known seven in all to be killed by the natives living near the St. John's river, but have never seen but one myself. This one was shot by a native in 1835, on an island in this river opposite Bexley, and so far as I can now remember, it corresponded with the description given by Dr. Morton and his correspondents. The natives say that they are to be frequently seen upon the islands opposite and above Bexley."

March 12th.

Mr. Pearsall in the Chair.

A note was read from Elliott Cresson, Esq., dated Philadelphia, March 8th, 1850, presenting a collection of Coleopterous insects from Liberia.

A letter from the American Academy of Arts and Sciences, dated Boston, March 6th, 1850, acknowledging the receipt of Part 4, Vol. 1, new series of the Journal, and requesting a copy of the first series, and offering in return such volumes of the Memoirs of the American Academy as may be wanting in the Library of this Society.

A letter from Maximilian Prince de Wied, dated Neu-wied on the Rhine, January 8th, 1850, offering to exchange specimens of European Quadrupeds, Birds, &c., for those of this country. Referred to the Zöological Committee.

A communication from Dr. Lewis R. Gibbes, dated Charleston, March 5th, 1850, accompanying "A Catalogue (prepared by himself) of the Crustacea in the Cabinet of the Academy of Natural Sciences of Philadelphia, February 20th, 1847, with notes on the most remarkable." The latter being intended for publication, was referred to a Committee consisting of Drs. Bridges, Zantzinger, and Leidy.

On motion of Mr. Vaux it was *Resolved*, That the Publication Committee be authorized to transmit to the American Academy of Arts and Sciences, such numbers of the first series of the Journal as the Committee may deem expedient.

March 19th.

Dr. Morton, President, in the Chair.

A communication was read from Peter A. Browne, Esq., entitled "Microscopic description of some piles on the head of Albinos." Referred to Mr. Fisher, Dr. Elwyn, and Prof. Haldeman.

On leave granted the Zoological Committee, to which was referred the Messrs. Short's communication to Mr. Elliott Cresson, of Philadelphia, in relation to their proposed scientific expedition to Africa, reported that it was inexpedient to recommend any action on the subject at this time by the Academy.

March 26th.

The Committee to which was referred Prof. Gibbes' Catalogue of the Crustacea in the Cabinet of the Academy, reported in favor of its publication in the Proceedings, with observations by the Committee.

Catalogue of the Crustacea in the Cabinet of the Academy of Natural Sciences of Philadelphia, August 20th, 1847, with Notes on the most remarkable.

By Prof. Lewis R. Gibbes, Charleston, South Carolina.

In August, 1847, the collection of Crustacea in the Cabinet of the Academy was kindly laid open to me for inspection and study; and as the specimens were not all labelled, I endeavored to make some return for the favor by labelling the whole collection, as far as practicable, in the few days I spent in the city, in a mode uniform with that I adopted for the collection belonging to the Boston Society of Natural History. No labels were attached, of course, to those specimens described by Mr. Say and Dr. Randall, which retained the original labels. The catalogue given below, with the notes on the principal species, were made during the examination of the collection, and I had intended to communicate them to the Academy soon after my return home, but several circumstances, which it is hardly necessary to mention, prevented my doing so as early as I intended, and I offer them now, as I believe no communication has yet been made to the Academy of the extent of their collection. The catalogue includes the Podophthalmian Crustacea only, as there were but few specimens belonging to the other subdivisions, and those not all in good condition.

In a few cases I have had to correct the determinations of Dr. Randall. The necessity for these corrections I communicated to Dr. R. after my return home, and begged that he would himself correct his own errors; but his distance from the specimens, and his present engagements, have induced him to entrust that office to me. I have therefore made the requisite corrections, influenced by that friendly consideration for Dr. R. which a consciousness of one's own liability to error should ever induce for the errors of others.

The nomenclature adopted is in general that of Milne Edwards.

CATALOGUE.

PODOPHTHALMIA. DECAPODA.

A. Brachyura.

1. Family OXYRHINCA.

I. Leptopodia, Leach.
  1. L. sagittaria, Leach.
  2. L. calcarata, Say.
II. Libinia, Leach.
  3. L. canaliculata, Say.
  4. L. dubia, M. Edw.
  5. L. affinis, Randall.
III. Lissa, Leach.
  6. L. fissirostra, Say.
IV. Herbstia, M. Edw.
  7. H. parvifrons, Randall.
V. Chorinus, Leach.
  8. C. heros, Leach.
VI. Mithrax, Leach.
  9. M. spinosissimus, M. Edw.
  10. M. hispidus, M. Edw.
  11. M. sculptus, M. Edw.
VII. Pericera, Latr.
  12. P. cornuta, M. Edw.
VIII. Epialtus, M. Edw.
  13. E. Nuttalli, Randall.
  14. E. productus, Randall.
IX. Lambrus, Leach.
  15. L. echinatus, M. Edw.
X. Parthenope, Latr.
  16. P. borrida, Fabr.

2. Family CYCLOMETOPA.

XI. Cancer, M. Edw.
  17. C. limbatus, M. Edw.
XII. Carpilius, Leach.
  18. C. corallinus, M. Edw.
XIII. Lagostoma, M. Edw.
  19. L. nodosa, Randall.
XIV. Panopeus, M. Edw.
  20. P. Herbstii, M. Edw.
  21. P. limosus, M. Edw.
XV. Pseudocarcinus, M. Edw.
  22. P. mercenaria.

XVI. Etisus, M. Edw.
23. E. lævimanus, Randall.
XVII. Platycarcinus, Latr.
24. P. irroratus, M. Edw.
25. P. productus, Randall.
XIX. Eriphia, Latr.
26. E. gonagra, M. Edw.
XX. Pilumnus, Leach.
27. P. aculeatus, M. Edw.
XVI. Trapezia, Latr.
28. T. cymodoce, Guerin.
XXII. Carcinus, Leach.
29. C. mænas, Leach.
XXIII. Platyonichus, Latr.
30. P. ocellatus, Latr.
XXIV. Lupa, Leach.
31. L. sanguinolenta, Desm.
32. L. dicantha, M. Edw.
33. L. cribraria, M. Edw.
34. L. rubra, M. Edw.
35. L. pelagica, Say.
XXV. Thalamita, Latr.
36. T. pulchra, Randall.
XXVI. Podophthalmus, Lamk.
37. P. vigil, Leach.

3. Family CATOMETOPA.

XXVII. Potamia, Latr.
38. P. dentata, Latr.
39. P. latifrons, Randall.
XXVIII. Orthostoma, Randall.
40. O. dentata, Randall.
XXIX. Uca, Latr.
41. U. una, Latr.
XXX. Cardisoma, Latr.
42. C. carnifex, Latr.
43. C. guanhumi, Latr.
XXXI. Gecarcinus, Latr.
44. G. ruricola, Lin.
45. G. lateralis, M. Edw.
XXXII. Pinnotheres, Latr.
46. P. byssomiæ, Say.
XXXIII. Ocypoda, Fabr.
47. O. arenaria, Say.
XXXIV. Gelasimus, Latr.
48. G. vocans, M. Edw.
XXXV. Macrophthalmus, Latr.
49. M. compressipes, Randall.
XXXVI. Sesarma, Say.
50. S. cinerea, Say.
51. S. reticulata, Say.
52. S. recta, Randall.
XXXVII. Grapsus, Lamk.
53. G. cruentatus, Latr.
54. G. pictus, Latr.
55. G. rudis, M. Edw.
XXXVIII. Pachygrapsus, Randall.
56. P. crassipes, Randall.
57. P. parallelus, Randall.
XXXIX. Nautilograpsus, M. Edw.
58. N. minutus, M. Edw.
XL. Plagusia, Latr.
59. P. clavimana, Latr.
60. P. squamosa, Latr.

4. Family OXYSTOMA.

XLI. Calappa, Fabr.
61. C. marmorata, Fabr.
62. C. cristata, Fabr.
63. C. tuberculata, Fabr.
XLII. Hepatus, Latr.
64. H. fasciatus, Latr.
XLIII. Guaia, M. Edw.
65. G. punctata, M. Edw.
66. G. ornata.

B. *Anomoura.*

XLIV. Dromia, Fabr.
67. D. lator, M. Edw.
XLV. Ranina, Lam.
68. R. dentata, Latr.
XLVI. Albunea, Fabr.
69. A. symnista, Fabr.
XLVII. Blepharipoda, Randall.
70. B. occidentalis, Randall.

LVIII. HIPPA, Latr.
71. H. emerita, Fabr.
LIX. CENOBITA, Latr.
72. C. Diogenes, M. Edw.
MONOLEPIS, Say.
73. M. spinitarsus, Say.
I. PORCELLANA, Lam.
74. P. sociata, Say.
75. P. cinctipes, Randall.
LII. PAGURUS, Latr.
76. P. Bernardus, Fabr.
77. P. punctulatus, M. Edw.
78. P. granulatus, Olivier.
79. P. aniculus, Fab.
80. P. pollicaris, Say.
81. P. carinatus, Randall.
82. P. symmetricus, Randall.
83. P. decorus, Randall.
84. P. lævimanus, Randall.
85. P. latens, Randall.

C. *Macroura.*

III. SCYLLARUS, Leach.
86. S. arctus, Fabr.
87. S. squammosus, M. Edw.
88. S. equinoxialis, Fabr.
IV. IBACHUS, Leach.
89. I. antarcticus, M. Edw.
V. PALINURUS, Fabr.
90. P. americanus, Lamk.
91. P. interruptus, Randall.
VI. NEPHROPS, Leach.
92. N. occidentalis, Randall.
VII. ASTACUS, M. Edw.
93. A. Bartoni, Fabr.
94. A. affinis, Say.
95. A. Blandingi, Harlan.
96. A. fluviatilis, Rond.
LVIII. ATYOIDEA, Randall.
97. A. bisulcata, Randall.
LIX. ALPHEUS, Latr.
98. A. dispar, Randall.
99. A. lævis, Randall.
LX. HIPPOLYTE, Leach.
100. H. marmoratus, M. Edw.
101. H. gracilipes, Randall.
LXI. PALEMON, Fabr.
102. P. carcinus, Fabr.
103. P. Gaudichaudi, M. Edw.
104. P. grandimanus, Randall.
105. P. gracilimanus, Randall.
106. P. punctatus, Randall.
LXII. PENEUS, Latr.
107. P. setiferus, M. Edw.
108. P. canaliculatus, Olivier.

PODOPHTHALMIA. STOMAPODA.

XIII. SQUILLA, Latr.
109. S. maculata, Fabr.
110. S. nepa, Latr.
111. S. empusa, Say.
112. S. stylifera, Lamk.
113. S. Cerisii, Roux.
LXIV. GONODACTYLUS, Lat.
114. G. chiragra, Latr.
115. G. styliferus, M. Edw.

NOTES.

2. **Lepidoptera calcarata.** All that remains of Say's original specimen is the tomachal region of the carapace, with the eyes and rostrum attached. This was ound in Charleston harbor; a second specimen has not, as far as I know, been et obtained.

5. **Libinia affinis**, Randall, hardly appears to differ from L. dubia, M. Edw.

6. **Lissa fissirostra** is the name under which Say described this species. Some

of our naturalists regard it as identical with Hyas coarctata of the British coasts. I have had no opportunity of comparing specimens from both shores of the Atlantic, but the American species appears to me to resemble most Hyas aranea, judging from the figure in Herbst's work.

9. Mithrax spinosissimus. The specimen in the collection is of unusual size. Carapace 7 inches in length, as many in breadth, and 3 inches thick; hand and finger 7 inches long, 2½ broad; whole length of one of the first pair of feet 13 inches.

12. Pericera cornuta. This specimen has been described by Dr. Randall (Jour. Acad. Nat. Sci., vol. viii., p. 108) as Chorinus armatus. It does not belong to the genus Chorinus, as the orbits of the eyes are not incomplete, as they are in that genus, but embrace the peduncle of the eye on all sides like a tube, allowing no other motion to the eye than that of retraction or protrusion. On comparison, Dr. R.'s description will be found to agree in general with that given by M. Edwards of Pericera cornuta, (Hist. Crust., tome I, p. 335,) and a reference to the figure given in Hughes' Nat. Hist, of Barbadoes, pl. 25, fig. 3, or to Herbst, pl. 59, fig. 6, will complete the proof.

13 and 14. Epialtus Nuttalii and productus Randall appear to be new and well marked species.

22. Pseudocarcinus mercenaria is the Cancer mercenaria of Say, (Jour. Acad. Nat. Sci., vol. I, p. 448,) abundant along our southern coast. It is referred by M. Edwards, with some doubt, to the genus Xantho of Leach, (M. Edw. Hist. Crust., tome I, p. 399,) but I have no hesitation in referring it to his own genus Pseudocarcinus, and am disposed to think that he had it before him when writing his description of Pseudocarcinus ocellatus, (op. cit., p. 409.) His description applies in every particular, but is short. The country of his specimens he says is unknown.

25. Platycarcinus productus, Randall, is a distinct species from the three others known.

28. Trapezia cymodoce. The specimens in the collection agree exactly with Guerin's figure, (Voy. Coq. Crust., pl. 1, fig. 4.) M. Edwards' remarks are very just with regard to the difference between Guerin's Trapezia cymodoce, and the Cancer cymodoce of Herbst.

33. Lupa cribraria. The crab of our southern coast described by Say as Lupa maculata, (J. A. N. S., vol. I, p. 445,) appears, by Edwards' description and figure, (op. cit., tome 1, p. 452, pl. 17,* fig. 1,) to be same as Lamarck's Portunus cribrarius, (Anim. sans Vert., tome V., p. 259, and 2^{me}. edit., t. V., p. 476.) Say's paper was read Dec. 1st, 1818, and Lamarck's fifth volume was published, as declared by the title page, in July, 1818, and his name has right of priority, and I have therefore adopted it.

35. Lupa pelagica. This specimen has Say's original label affixed, and is doubtless one of the specimens described by him in the Jour. Acad., vol. I, p. 97. It is not the L. pelagica of M. Edwards, and does not appear to be the young of the L. dicantha common along our coast; but further examination is requisite to determine what claims it has to be considered new.

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*He refers, through mistake, to pl. 18, fig. 1.

tamia latifrons, Randall, is distinct from Boscia dentata, M. Edw. as generic name, ought to take precedence of Boscia.

thostoma dentata, Randall, forms a genus distinct from the others of the p.

crophthalmus compressipes, Randall, is a distinct species, and is the be M. podophthalmus figured in the *Voyage of the Bonite*. Priority of n must determine which name shall prevail. The text of the work I seen.

apsus cruentatus. The individuals in the Collection of the Academy, to this species, were erroneously regarded by Dr. Randall as new, and ribed by him as G. longipes, in the Journal of the Academy, (vol. viii, It was doubtless a mistaken supposition that they were brought from as stated p. 126, and this error probably misled Dr. R.

apsus rudis, M. Edw., is the same as G. hirtus, Randall, (J. A. N. S., p. 124.) Milne-Edwards' name has priority. With him I regard G. istinct from G. pictus, though it differs only in the following particulars: ace is clothed with numerous but distant transverse lines of hairs; the ot so perpendicularly turned down; the four lobes of the front are more us, and the limbs smaller when compared with the body. There is but men in the collection, but that is in good condition.

57. Pachygrapsus crassipes and P. parallelus appear to be distinct from ibed species of the genus Grapsus.

aia ornata. This is a very distinct and pretty species of the genus scribed by Dr. Randall as Ilia ornata, (J. A. N. S., vol. viii, p. 129,) lly belongs to the genus to which I have referred it. This error, of ng the two genera, Ilia and Guaia, has been committed by others be- R., until specimens really belonging to the genus Ilia fell into their en a distinctive character is at once perceived in the peculiar contorted e hands in this genus. For want of attention to this point, Myra fugax punctata have been confounded with Ilia punctata, many points in the n of each being common.

nina dentata. Two fine specimens. Dimensions of largest: carapace long, 4½ broad; carapace and abdomen extended, 7 inches; breadth of er excluded, 1¼ inch, including finger, 2¼ inches; length of thumb or finger, 1¼ inch; length of one of the first pair of feet, thumb extended, s.

pharipoda occidentalis, Randall. A well marked genus. The indi- a female; abdomen with appendages, first pair of feet cheliform; hence Albunea, but quite distinct.

rcellana sociata, Say. In Say's article (J. A. N. S. vol. i. p. 456) the his species is given P. soriata. Say's original specimen is still in the of the Academy, but the label could not be found to determine how he name; there can be but little doubt that the name as printed is a typo- error arising from an imperfection in the manuscript, and that Leach, t, and Milne Edwards are right in regarding *sociata* as the true specific imperfectly formed *c* connected with the preceding letter being easily for one of the manuscript forms of *r*. Another example of deviation from the original orthography is furnished by Leach's genus Lupa, but in this case the deviation is unjustifiable. In Leach's article Crustaceology, in the Edinb. Encycl., he uses Lupa throughout, and Desmarest does the same in the Consid. Gen. Crust. Milne Edwards, misled apparently by the orthography of the name in French, *Lupée*, erroneously uses Lupea in his Hist. Nat. Crust. tom i. p. 445, (text and note), while in the references in the notes in the following pages, he uses Lupa; in his notes to the second edition of Lamarck's Anim. sans Vert. tom. v. p. 473, he gives Leach's genus as Lupea, while in the references to his own work (Hist. Nat. Crust.) on page 476, he uses thrice Lupa, and once Lupea. Lastly, in the Appendix to Leach's own article in Edinb. Encyc., the genus is called Lima!

89. Ibachus antarcticus. One individual marked as "brought from Santa Cruz by R. E. Griffith," agrees with Milne Edwards' character for I. antarcticus, the spine being *present* on the fifth pair of feet, the *absence* of which marks his I. Parræ, a native of the Antilles. Is I. Parræ a distinct species? or is it only imperfectly distinguished by the character he assigns to it?

98. Alpheus dispar, Randall, is hardly distinct from A. brevirostris, M. Edw.

101. Hippolyte gracilipes. The specimen thus labelled was in bad condition, but certainly belongs to the genus Palemon; probably some interchange of labels had taken place.

103. Palemon Gaudichaudii, M. Edw. Two fine specimens of this species of Milne Edwards, first brought from Chili by Gaudichaud.

111. Squilla empusa. The specimen I labelled thus, was said to be brought from the Pacific, and does not perceptibly differ from S. empusa, Say, from the Atlantic coast; if it really came from the Pacific, direct comparison with S. empusa of our Coast ought to be made, which I was not able to do for want of specimens of the latter at hand.

113. Squilla Cerisii. This specimen was brought from the Pacific, and agreed with M. Edward's description of the S. cerisii of Roux, inhabiting the Mediterranean; direct comparison is necessary to determine in what points they really differ. It is more probably the same as S. Lessonii, of Guérin.

There were also some eight or ten undetermined species, and several of Say's original specimens of the lower orders of the Crustacea.

Several of the species described by Dr. Randall were wanting, and have been omitted of course in the preceding catalogue.

Additions and Observations by the Committee.

In cases where the additions are of species in genera already in the collection, the numbers for the genera in Prof. Gibbes' paper are used, while higher numbers are employed for the additional genera.

LXV. STENORHYNCHUS, M. Edw.
  116. S. phalangium, Pennant.
LXVI. INACHUS, Fabr.
  117 I. Dorsettensis, Leach.
LXVII. MAIA, Lam.
  118. M. squinado.
LXVIII. HYAS, Leach.
  119. H. coarctata, Leach.
  120. H. avanea, Leach.

LXIX. Eurynome, Leach.
- 121. E. aspera, Pennant.

XIV. Panopeus, M. Ed.
- 122, 123. P. (undetermined) from Brazil.

LXX. Daira, De Haan.
- 124. D. perlata.

LXXI. Xantho, Leach.
- 125. X. intonsus, Rand.
- 126. X. floridus, Montagu.

XV. Pseudocarcinus, M. Ed.
- 127. P. Rhumphii.

XVII. Platycarcinus, Latr.
- 128. P. pagurus, Linn.
- 129. P? (cancer) decorus, Herbst. (a carapax only, from Tampa Bay, Florida.)

LXXII. Pirimela, Leach.
- 130. P. denticulata, Leach.

LXXIII. Portunus, Fab.
- 131. P. pusilus, Leach.
- 132. P. puber, Leach.
- 133. P. arcuatus, Leach.

XXIV. Lupa.
- 134. L. (undetermined.)

XXXII. Pinnotheres, Latr.
- 135. P. pisum, Pennant.

XXXIII. Ocypode, Fabr.
- 136. O. Rhombea, Fabr.
- 137. O. Urvillii, Guerin.

XXXIX. Gelasimus, Latr.
- 138. G. platydactylus, Latr.
- 139. G. minor, Owen.
- 140, 141, 142. G. (undetermined.)

XXXV. Macrophthalmus, Latr.
- 143. depressus, Rupp.
- 144. transversus?

XXXVI. Sesarma, Say.
- 145. S. tetragona, Fab.
- 146. S. ———?

XXXVII. Grapsus, Lam.
- 147. G. plicatus.

LXXIV. Corystes, Leach.
- 148. C. cassivelaunus, Pennant.

XLIV. Dromia, Fabr.
- 150. D. Rhumphii, Bosc.

LI. Porcellana, Lam.
- 151. P. cristata.
- 152. P. longicornis, Penn.
- 153. P. platycheles, Penn.
- 154, 155, 156, P. (undetermined.)

LII. Pagurus, Latr.
- 157. P. longicarpus, Say.
- 158. P. Prideauxii, Desm.
- 159. P. vittatus, Bosc.
- 160. P. striatus, Bosc.

LXXV. Galathea, Fabr.
- 161. G. strigosa, Lin.
- 162. G. squamifera, Montagu.

LXXV. Thenus, Leach.
- 163. T. orientalis, Fab.

LXXVI. Gebia, Leach.
- 165. G. affinis, Say.

LXXVII. Homarus, M. Ed.
- 166. H. vulgaris, M. Ed.

LVII. Astacus, Fabr.
- 167. A. pellucidus, Tellkampf.
- 168. A. Weigmanni, Erichson.

LXXVIII. Crangon, Fabr.
- 169. C. vulgaris, Fabr.

LXI. Palæmon, Fabr.
- 170. P. vulgaris, Say.
- 171. P. serratus, Fabr.
- 172. P. Jamaicensis, Oliv.
- 173. P. squilla, Fabr.
- 174. P. spinimanus, M. Ed.

LXIII. Squilla, Latr.
- 175. S. monoceros, M. Ed.

Making the whole number of genera in the collection seventy-eight, and of species, one hundred and seventy-five.

Macrophthalmus compressipes, Rand., is Gelasimus telescopicus, Owen, Voy. Blossom, pl. 24, fig. 1, and M. podophthalmus, Voy. Bonite, pl. 3, fig. 6, 7.

Pachygrapsus parallelus, Rand., is Grapsus Thukuhar, Owen, l. c., fig. 3.

Pagurus decorus, Rand., is P. pictus, Owen, l. c. fig. 2.

Voyage de la Bonite bears date of 1841, and is posterior to both the others, the Voyage of the Blossom being dated in 1839, and Dr. Randall's paper having been read before the Academy, June 18th, 1839, although not actually published in the Journal until January, 1840.

Prof. Gibbes in stating that several of Dr. Randall's specimens had been lost, has overlooked Xantho intonsus, Rand., which is still in the cabinet of the Academy. But one other species is omitted in Prof. Gibbes' list, Astacus Oregonus, which was lost or destroyed while in the hands of the artist by whom the drawing, published in the eighth volume of the Journal, was made.

The Committee to which was referred Mr. Peter A. Browne's paper on the hair of the Ornithorynchus paradoxus, reported that in consequence of the author's observations having been already anticipated by a number of distinguished naturalists and others, the Committee deem it inexpedient to recommend Mr. Browne's paper for publication.

In accordance with a resolution offered at last meeting of business, a life membership was conferred on Dr. J. K. Townsend, in return for his numerous valuable contributions to the Cabinet, at various times.

ELECTION.

M. Alfred Malherbe, President of the National Academy of Metz, in France, was elected a *Correspondent*, and Charles M. Wheatley, Esq., of New York, was elected a *Member* of the Academy.

April 2d.

Dr. Morton, President, in the Chair.

A letter was read from the Lyceum of Natural History of New York, dated March 26th, 1850, acknowledging the receipt of Vol. 3, No. 3, and Vol. 4, Nos. 9—12, of the Proceedings, and Vol. 8, Part 2, first series of the Journal.

Also a letter from Mr. James Deane, offering to prepare for publication in the Journal of the Academy, a paper on the fossils of the new red sandstone of the Connecticut valley. Referred to the Publication Committee.

Dr. Morton, on resigning the chair to Mr. Vaux, then read a further continuation of his paper on the size of the brain in the various races of Man.

The following is an analysis of this portion of the Memoir:—

In regard to the diversity of the human species, some ethnologists account for it by supposing changes to be effected by varieties in food, vicissitudes of climate, and other physical agents. Others again attribute the differences to the rise of accidental varieties, by which individuals have been produced, from whom, at first, tribes, then races and nations have sprung in succession.

If, therefore, we suppose all mankind to have been originally white, the hypothesis would necessarily require that negroes must be a mere accidental variety. This is Dr. Prichard's view of the case.

Dr. Morton said analogical reasoning, based upon the known changes which occur among the lower animals, would lead us into error if applied to Man. For instance, the Reindeer of Lapland do not change in the slightest particular after long domestication. The Peacock, also, has not varied during thousands of years, unless some few tints originally perfectly *blue* may have become greenish. Other instances of this kind might be enumerated.

Again, some animals in a very short time, in two or three generations, become entirely changed in color, as the Guinea pig and the turkey. Sometimes even the anatomical structure undergoes material changes under the influence of domestication; for instance, in the common pigeon, (*Columba livia,*) the sheep and the dog. He particularly directed attention to the fact that some animals in the *wild state* undergo remarkable changes; the Black squirrel and the Red squirrel for instance, while some other species of the same genus are unchangeable.

Some animals are not less remarkable for being liable to change than others are remarkable for resisting every impression from vicissitude or difference of climate and other causes. For instance the Bengal tiger, *Felis Tigris*, is precisely the same in every tint, whether inhabiting the frozen shores of Lake Baikal in Siberia, or the jungle of Ceylon. The greatest extremes of climate appear alike congenial to this animal.

In the north western province of Delhi, Bishop Heber saw a *shaggy Elephant;* and he states that in the course of one or two winters, dogs brought from Europe become woolly in that region, and even horses undergo a similar change; but this tendency does not extend to the human race, for the inhabitants are remarkable for the length and straightness of their hair.

Dr. Morton also adverted to the fact that the wool of sheep becomes long and hairy in Guinea, where human hair is naturally woolly.

From these and many other facts he inferred that causes which produce changes in the lower animals cannot change man.

Differences in modes of life have been considered productive of changes in man. But if we examine the aborigines of America, from Canada to Terra del Fuego, we seek in vain for a woolly head; men are found with skins lighter or darker in color, but all are *Indians* in every characteristic, and this throughout a range of 10,000 miles. He questions whether any one ever saw a true Indian who could be mistaken for a being of any other race.

In Europe we trace families through many generations, either living in the extremes of affluence or of misery, yet never does one race merge into another nor does a new race rise up among them.

Mr. W. B. Hodgson, Consul of the United States at Algiers, states there is a tribe of white men supposed to be derived from the lost tribes of Israel, now existing in the heart of the Negro territory; yet they have acquired no negro peculiarity, but are remarkable for all the characteristics of the white race—skin, hair and form. This is one of many similar examples.

Again; how does it happen that no Negro has ever been born as an accidental variety, among the Caucasian, Mongolian or other races?

It is vain to seek for the origin of Negro races in morbid change. No morbid change tends to perpetuity, but, on the contrary, it wears out sooner or later.

Dr. Morton conceives that there is a constant tendency in nature to restore and preserve a primitive type. A black man and white woman, or a black woman and white man, produce a hybrid offspring, and that hybrid reproducing in turn, one or other of the original types will sometimes occur in such progeny.

In Peru some Spanish families, two or three centuries since, intermarried with the Inca, or purely Indian race; and notwithstanding no further cross with the Indian stock has subsequently occurred in these families, the Indian characteristics are said occasionally to reappear even at the present time.

Asiatics may have landed ages ago upon this continent; but if they did so, they have all been swallowed up and lost, in the indigenous population; and no unequivocal trace of them remains in our Indian population. Before the landing of Columbus, as well as since, the New World has presented every possible vicissitude of climate which could be supposed to produce a negro or any other race, but not an individual of such a race has ever appeared.

Dr. M. added, that such was the effect of the blending of dissimilar types on the American continent, that he could produce, from among the colored population of this city, many of the diversified forms and colours that exist in Africa itself.

In the case of seven species of domestic fowl, Temminck has shown that five out of the seven cross among each other, and produce prolific hybrids, and then branch out into innumerable varieties: and the varieties of the domestic pigeon differ more among each other than some distinct genera of other animals.

Domestic cattle if bred *in and in*, dwindle. In Paraguay it is necessary to refresh the stock by importations from other pastures. Other domestic cattle also exhibit this peculiarity of hybrids.

If mulattoes were bred *in and in*, without resorting to the parent stock, they would soon become extinct.

A circular was read from the Committee of reception of the National Pacific Rail Road Convention, now in session in Philadelphia, asking permission of the Academy for the members of the Convention to visit the Museum; whereupon a resolution was adopted granting the desired permission.

April 9th.

DR. MORTON, President, in the Chair.

Dr. Leidy remarked that crystalline bodies had been detected in most of the tissues of many plants, but that their occurrence in animal tissues was much more rare. The deposit of earthy salts in many tissues, such as bone, enamel and shell, though analogous, was not homologous with crystallization. The earthy deposit in the shell of the egg of many animals is probably an instance of true crystallization within an animal tissue, for in those animals which have eggs with a semi-membranous shell, as many helices, &c., we can detect the carbonate of lime deposited in the form of regular rhombohedrons. He stated that he lately met with a remarkable instance of crystallization within animal organic cells. In examining the stomach of the larva of Arctia Isabella, a Lepidopterous insect, he found that the nucleus of every epithelial cell contained an octohedral crystal, the axes of which measured about the 1-3750th of an inch. The cells were colorless, (not white,) containing some faintly granular matter, which, in many instances, was collected into distinct rounded masses. The nuclei were round, elliptical, or lenticular, transparent, and measured the 1-1666th of an inch when round. The following day, upon examining some of the cells, which had been preserved between two slips of glass hermetically sealed, the crystals had disappeared, and the nuclei had become distinctly and opaquely granular. Acetic acid rendered the granular matter more translucent, and brought into view the nucleolus, which, not being visible the preceding day, probably served as the nucleus of the crystalline body. The animal, when examined, was in a state of hybernation, at which period organic activity is reduced, which would predispose to the crystallization of any salt in solution in an organic cell, for it appears that the frequency of the existence of crystalline bodies in the organic kingdom, is, to a considerable extent, dependant upon an inverse ratio of activity of life.

Dr. Morton then resumed the subject of the plurality of origin of the human race. In evidence of its orthodoxy, and of its being in accordance with a liberal interpretation of the Pentateuch, he adduced the last edition of the work of the Rev. Dr. John Pye Smith, on the Relations of Geology and Revelation. This author designates the Deluge as a local phenomenon, and circumscribes its limits. Geologists are in general convinced that it was not universal.

As regards the opinion that the various races of the human family were *primordially distinct*, Dr. Morton is convinced that the tendency of investigation goes every year to strengthen it. In other words, Man was aboriginally suited by his Creator for the various localities in which he has placed him. Dr. M. also read some interesting quotations from Dr. Pye Smith's work, in further support of this opinion. Mr. White, of England, fifty years since, also maintained that the plurality of the human race was in accordance with the text of Genesis, and Mr. E. King strenuously takes the same ground. In 1835, Rev. Dr. Thomas Arnold remarks in a letter to Archbishop Wheatley, "that he fears the physiological question is not yet settled."

Dr. Morton distinctly disclaimed any desire to enter into controversy on the biblical view of the question; but he was glad to show, from clerical authors, that the naked facts of zoological science, and the statements of Genesis, are in harmony with each other.

April 16th.

DR. MORTON, President, in the Chair.

Dr. Leidy read a description of new species of Entophyta, which was referred to Drs. Bridges and Zantzinger, and Mr. Powel.

A letter was read from Mr. James Deane, dated Greenfield, Mass., April 8, 1850, in reference to the publication in the Journal of the Academy, of a paper by him on the Sandstone fossils of the Connecticut valley. Referred to the Publication Committee.

Two communications were read from the Geological Society of London, dated Somerset House, 8th Nov. and 22d Nov., 1849, severally acknowledging the receipt of late numbers of the Proceedings, and of Part 3, new series of the Journal.

A communication from the Royal Society of Van Dieman's Land was read, dated Hobart Town, 15th September, 1849, presenting a copy of Part 1, Vol. 1, of their Proceedings, a collection of seeds of 150 species of plants, indigenous to Tasmania, and a specimen of *Phascolomys wombatus*, and also requesting that a correspondence and a system of exchanges be opened between the two Societies.

Whereupon, on motion of Dr. Leidy, it was *Resolved*, That the Academy will reciprocate the favor extended to it by the Royal Society of Van Diemen's Land, and that the Curators be empowered to act accordingly.

Mr. Peter A. Browne said that he had recently had an opportunity of examining the hair on the head of a human fœtus of five months, and found it wanting in several peculiarities of the adult hair.

On motion, it was *Resolved*, That the 8th volume of the Journal of the Academy be presented to Hugh E. Strickland, Esq., of England.

April 23d.

Dr. Morton, President, in the Chair.

Letters were read:

From the Zoological Society of London, dated Dec. 22d, 1849, acknowledging the receipt of recent numbers of the Proceedings of the Academy, and also of parts 1, 2 and 3 of vol. 1 of the Journal.

Two letters from the "K. L. C. Akademie der Wissenschaften," dated severally Breslau, 13th and 17th December, 1849, acknowledging the receipt of the Proceedings of the Academy.

Also two letters from the "Institute Royal des Sciences, &c. des Pays Bas," dated Amsterdam, December, 1849, acknowledging the receipt of the Proceedings of the Academy, and presenting a copy of its Memoirs, 3d series, vol. 1, parts 3 and 4, its Journal of the same, vol. 3, parts 1 and 2, and Annuaires of the same for 1847, '48 and '49.

Dr. Leidy read a paper, intended for publication in the Journal, describing the following new American species of Annelida abranchia:

1. Nais gracilis, *Leidy*. 50 articulations. Length 5 lines.
2. Nais rivulosa, *Leidy*. 20 articulations. Length 3 lines.
3. Pristina longiseta, *Ehrenb.*

   Strephuris, n. g., *Leidy*. Podal spines alternating with setæ, in two rows; upper lip moderately projecting; girdle well marked; number of articulations not over 70; no muscular stomach; blood bright red.
4. S. agilis, *Leidy*. Length 1 to 1½ inches.
5. Aeolosoma venustum, *Leidy*. 8 articulations. Length 1-40th inch.
6. Enchytraeus vermicularis, *Henle*.
7. E. socialis, *Leidy*. Articulations not over 52. Length 5 to 10 lines.
8. Lumbriculus limosus, *Leidy*. 170 to 224 articulations. Length 2 to 4 in.

Referred, on motion, to a committee consisting of Drs. Hallowell and Morton, and Prof. Haldeman.

April 30th.

DR. MORTON, President, in the Chair.

The committee to which was referred Dr. Leidy's paper on some new Entophyta, reported in favor of publication in the Proceedings.

Descriptions of new Entophyta growing within animals.

By JOSEPH LEIDY, M. D.

ECCRINA.[*] (Gen. Nov.) Characters same as Enterobryus,[†] except that it divides into numerous cells at the free extremity.

Eccrina longa. Filaments long and delicate, hyaline, or faintly brownish, at first forming a simple curve, or a single spiral turn, and then passing in a straight line to the free extremity. Peduncle very short. Frond cell usually filled with globules, and a few granules, except at free end where it is usually filled with granules to the exclusion of the globules. End cells as high as thirty in number, at first consisting of elongated divisions of the frond cell contents, but becoming distinct elliptical cells, from two to three times longer than the breadth; contents usually granular, occasionally with a few globules. End cells finally separating from the parent. Length from three to seven lines, breadth 1-2000th to the 1-517th in., not usually corresponding to the length. End cells 1-517th to the 1-357th in. in length.

Habitat.—Grows in very great profusion from the mucous membrane of the posterior part of the intestine of Polydesmus virginiensis.

(Dr. L. exhibited to the Academy a preserved fragment of mucous membrane, with filaments of this species six lines in length growing from it.)

Eccrina moniliforma. Filaments hyaline or yellowish, forming a double or treble spiral. Peduncle short. Frond cell filled with globules and granules, except towards its free extremity, where it is filled with granular matter divided into distinct and separate masses, usually a little shorter than broad, and containing each a globular nucleolated nucleus. Divisions progressively passing towards the end into globular cells with granular contents. Divisions and globular cells from 20 to 50 in number.

Length from 1 to 1½ lines, breadth average 1-1500th in. Divisions of frond cell contents and globular cells from 1-1875th 1-1500th in. Nucleus of cells 1-3750 in.

Habitat.—Grows in moderate quantity from the mucous membrane of the intestine of 50 per cent. of Polydesmus granulatus.

Arthromitus nitidus. Filaments very long, hyaline, grows usually in twos or fours, pointed at the origin, rounded at the termination. Articuli very distinct, length equal to the breadth of the filament. Sporuli formed within the articuli, solitary, usually oblique, oval, amorphous.

Length 1 line by 1-5000th in. broad. Spores 1-7.111th in. long, by 1-12.500th in. broad.

Habitat.—Grows in considerable quantity with a profusion of young of Enterobryus elegans from the mucous membrane of the posterior portion of the rectum of Julus marginatus.

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[*] Εκκρινω segrego.

[†] Proc. Acad. Oct. 9, 1849.

Remarks.—Since I established the genus Arthromitus* I have observed the formation of its sporuli. These originate in the amorphous matter of the articuli, apparently by a very gradual aggregation and condensation of the contents. They are always single, and usually lie oblique, and frequently alternate with each other in this position in the different articuli. When they first appear they are larger than when fully formed, are frequently bent, or clavate in form, and very indistinct, but as they ripen they become more regular, oval, distinct, and quite refractile of light. Usually they are observed at the extremity of the filaments only, but frequently they are found existing in the whole length of the latter.

A species of Arthromitus, and also of Cladophytum is found in the intestine of Polydesmus virginiensis.

The Higrocrocis intestinalis found by Valentin in the Blatta orientalis, I could not find in our domestic cockroach, although I found numerous simple, phytoid, inarticulate filaments, growing from an oxyuris infesting this animal.

The committee on Dr. Leidy's paper, describing some new American Annelida abranchia, reported in favor of publication in the Journal.

The following amendment to Art. 1, Chapter 6th, of the By-Laws, proposed by Mr. Moss, was adopted:

"There shall be sixteen standing committees," (instead of fifteen.)

The object in the amendment being to make the Committees on Geology and Mineralogy distinct.

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*Proc. Acad. Oct. 9th, 1849.

DONATIONS TO MUSEUM.

In March and April, 1850.

March 5th.

all collection of minerals; presented by Mrs. Commodore Hull, through
wyn.

Joseph Culbertson, of Carlisle, Pennsylvania, presented the specimens of
idodon and Poebrotherium, and also other (undetermined) mammalian frag-
formerly deposited by him in the Academy.

March 12th.

ton of Numenius phœopus, Falco ——, Columba ——, Fulica atra, Gal-
chloropus, Fringilla carduelis. Anas crecca, Scolopax lapponica, S. cali-
Tringa fugax, T. ——? Ardea minuta, (total 14.) Presented by Mr.
', of London.

ral specimens, in spirits, of Scarabæus centaurus, and S. chideon, from
From Mr. Elliott Cresson, of Philadelphia.

March 19th.

keletons of Birds. From Mr. Goadby, of London.

tiful specimen of native silver, from Peru. Deposited by Dr. Elwyn.

April 2d.

following were presented by M. Edouard Verreaux, of Paris:
e skeletons of Birds, (Amadina, Parus and one undetermined); 3 heads of
Phaleris, 2 Phænicophæus); 13 species, 33 specimens of recent shells from
15 do. 150 do. do., Marquesas Islands; 9 do. 105 do. do., Otaheite; 11 do.
lo., France, of the following genera, Unio, Dreissena, Pisidium, Clausilia,
a, Vitrina, Cyclas, and Limnea; 6 species, 30 specimens of Fossil Shells,
laestricht; 2 do. 2 do. do., the Miocene of France; 246 do. 270 do. do.,
ene of France; 2 do. 2 do. do., the Cretaceous of France. 1 specimen of
e of Strontian, from Sicily.

following skins of Mammalia were presented by H. E. Strickland, Esq.,
and:
t, procured by Mr. S. at Smyrna, in 1835; 1 Felis, India?; 1 Lepus timi-
in.), alpinus, (Auct.) Norway; 1 do. hybridus, (Pall) Crimea; 1 do.
rus, Ireland; 1 do. alpinus, (timidus, Lin.) Scotland; 1 mammal from
e of Good Hope; 1 Ornythorhynchus paradoxus, New South Wales; 2
vulgaris, Switzerland; 2 Mus sylvaticus, Gloucestershire; 1 mammal,
lia; 1 Vespertilio pipistrellus, Gloucestershire; 1 Vespertilio noctula,
; 1 do., India? or Mauritius?; 2 Sorex araneus, Gloucestershire; 1 Musk
auritius; 1 Plecotus auritus, Gloucestershire.

Sterna of Birds; (Falco, Sturnus, Lanius;) 2 Skeletons: (Sciurus cinereus,
nonius.) Presented by Dr. A. O. Blanding.

of native Gold; fragments of do.; gold dust of fine quality; gold obtained
lgam with mercury; and auriferous sand. From the American river,
river, and other localities in California. Collected and presented by Dr.
rman.

y-three species Fungi; 46 do. Musci and Hepatici; 29 do. Lichenes; 13
nerogamia, from South Carolina. Presented by H. W. Ravenel, of South
a.

of Apteryx australis? Deposited by Dr. T. B. Wilson.

yra costata, very perfect, near Woodbury, N. J. Presented by Mr. S.
er, of Pottsville.

ction of Insects; from Delaware County, Pennsylvania. Presented by
. Wood, Jr.

April 9th.

Anadonta Wahlamatensis and A. angulata, California. Presented by Dr. Heerman.

Forty-four specimens, 17 species fresh water and marine shells; 5 specie crustacea, (Sesarma, Lupa, Peneus, Balanus;) 60 specimens, 44 species Coleoptera; 66 specimens, 35 species Lepidoptera; 80 other insects; 2 species Alcedo; 8 Serpents, 8 Lizards, 3 Fishes; 3 Myriapoda; 15 specimens Rocks From China. Presented by D. B. McCartee, M. D., Ningpo, China.

Anastatica hierochuntia, or the Rose of Jericho; Fossilized wood, from th petrified forest near Cairo, Egypt. Presented by Dr. R. Eppes, of Virginia.

Cranium of a Chinese. Presented by Dr. J. Carson.

Cranium of a Chinese. Deposited by Dr. W. P. Johnson.

A collection of Plants from Madeira and the adjoining Islands. Presented b Henry Etting, Esq., Purser, U. S. N., through Dr. Hays.

April 16th.

Fifty-one Bird Skins, from Van Dieman's Land, of the following genera: species Astur, Jeracidea, Podargus, Athene, Artamus; 3 Pardalotus, Streper Graucalus, Pachycephala, Colluriocincla, Myiagra, Erythrodryas, 2 Petroica, Ma lurus 2, Acanthiza, Estrelda, Cinclosoma 2, Oreocincla, 2 Meliphaga, Ptilotis, Anthochæra 3, Acanthorhynchus, Melithreptus, Myzantha 2, Zosterops Cuculu Chalcites, Calyptorhynchus, 2 Platycercus 3, Euphema, Pezoporus, Trichoglossu Lathamus, Peristera, Hiaticula, Recurvirostra, Scolopax, Rallus, Porzana, 6 skin of Mammalia: Dromica gliriformis, Phalangista viverrina, Dasyurus Maugei, An techinus Swainsoni, 2 undetermined. Also, 2 living specimens of Paramele ——? from Van Dieman's Land; a silurian fossil Productus; fragment of Foss wood, and 4 specimens Malachite; 2 specimens of Sphaeria, (distinct from Robertsii or S. sinensis,) growing upon the larva of a Lepidopterous insec From Van Dieman's Land. Presented by Capt. Wm. McMichael.

Seeds of 150 species of indigenous plants of Tasmania. Presented by the Roy Society of Van Dieman's Land.

April 23d.

Fossil remains of Dinornis giganteus, and other species of Dinornis, and sever specimens of the deposit in which they were found. Collected in New Zealan by Walter Mantell, Esq., of Wellington Government Commission for the settl ment of native claims, and presented to the Academy by Dr. Thomas B. Wilso

List of Dinornis Remains.

1, Ribs of Dinornis. 2, Specimen of the turbary deposit at Waikonaiti in t Middle Island, in which the bones of the largest species of Dinornis occur. Proximal middle phalangeal bone of Dinornis. 4, Proximal phalangeal. 5, 6, 8, Do. 9, Phalangeal, from Waingongoro, in the North Island. (In this locali the bones occur in a bed of volcanic sand, containing crystals of augite, tita ferous iron, &c. See Geological Journal for 1849.) 10, 11, Do. 12, Ungu bone. 13, Phalangeal. 14, Cervical vertebræ, Waingongoro. 15, Cervical 16, Two vertebræ, (very rare,) genus undetermined; query, if allied to the Pe guin. 17, 18, Ungual bone. 19, Do. and phalangeal. 20, Ungual. 21, 2 Proximal phalangeal of Palapteryx. 23, 24, Middle proximal phalangeal. 2 Inner proximal. 26, 27, Inner and outer proximal phalangeal. 28, Second a third phalangeal. 29, Third phalangeal. 30, Second phalangeal of Dinorn 31, Third phalangeal. 32, Phalangeal and Ungual Waingongoro. 33, Ischi of Dinornis. 34, Ribs of Dinornis. 35, Rib of do. 36, Ischium of Dinorn 37, Portions of Ischium and Pubis. 38, Ischium of Dinornis. 39, Ribs of 40, Portions of fibulæ. 41, Three unguals of Dinornis didiformis. 42, Th unguals do. 43, Two do. 44, Head of tibia of Din. curtus? or otidiform 45, Specimen of some of the bed in which the bones of the Dinornis, &c. occ near the embouchure of the river Waingongoro, in the North Island. 46, Twel phalangeals, (including the three unguals, numbered to place together, with t following,) very fine. 47, Tarso-metatarsal, of the Dinornis giganteus, very fine. (With No. 46, the structure of the entire foot of the largest species of Moa, is beautifully demonstrated. The phalangeal bones do not all belong to this metatarsal, but they have been selected with great care by Mr. Walter Mantell, and fitted together on the spot; the type of the original is now fortunately known from two perfect feet, not quite so large as the above, having been dug up, standing erect in the tertiary bed at Waingongoro, as if the Moa had become swamped in the bog and perished. Nos. 46 and 47 arranged together according to the numbers and figures attached to each bone, afford the finest illustration of the foot of the gigantic Dinornis hitherto obtained.) 48, Another magnificent specimen of the Tarso-metatarsal of Din. giganteus, or *ingens*. (The reference of separate bones to the several species assumed by Prof. Owen, must be received as approximative only; except where bones are found in apposition, (as in No. 46 and 47,) for it is very probable future discoveries may show a different arrangement of femora, tibia, metatarsal, &c., than that adopted in the Zoological Transactions. Some of Prof. Owen's species are well marked, and will doubtless stand good; others are doubtful.) 49, 50, Proximal phalangeal of Din. giganteus. 51, 52, Acetabula of Dinornis ——? 53, Right tarso-metatarsal of Dinornis calnarinus. 54, Do. of Dinornis crassus. 55, Right do. 56, Right tarso-metatarsal of Din. calnarinus. 57, Do. of Dinornis crassus. 58, Left do. D. calnarinus. 59, Right D. crassus. 60, Left do. do. 61, 62, Portion of pelvis of Din. giganteus. 63, Right femur of Dinornis dromioides. 64, Do. do. struthioides. 65, Left do. do. 66, Femur of a very young Din. giganteus, or ingens. 67, Femur of Din. didiformis. 68, Do. dromioides. 69, Portion of shaft of Tibia. 70, Femur of young Dinornis dromioides. 71, Sacrum of Dinornis giganteus. 72, Ischium and pubis of Dinornis. 73, Dorsal vertebræ of Dinornis giganteus. 74, Cervical of do. 75, Dorsal vertebræ of Din. ingens. 76, Do. (young bird). 77, Proximal part of Tibia of Dinornis giganteus. 78, Pelvis of Din. giganteus. 79, Femur of do. 80, Femur of do. (The above, (73 to 80,) are very fine, the pelvis, femora, and larger vertebræ are especially interesting.) 81, Right Tibia of Palapteryx (olim Dinornis of Owen) dromioides. 82, 83, Left do. 84, Right Tibia of Pal. dromioides. 85, 86, Fibula of Dinornis giganteus. 87, Distal portion of left tibia of Dinornis didiformis. 88, Volcanic sand from the Moa bed at Waingongoro.

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Journal of the Indian Archipelago, and Eastern Asia. Vol. 3, No. 8, August, 1849. From the Editor.

Proceedings of the Geological and Polytechnic Society of the West Riding of Yorkshire, March, 1840. From the Society.

Twenty-third and twenty-ninth Reports (1842, '43, and 1848, '49) of the Counci of the Leeds Philosophical and Literary Society. From the Society.

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Comptes rendus. Nos. 23—26, Tome 29.

The London Athenæum, for January, 1850.

Revue et Magasin de Zoologie. No. 11, 1849.

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Annals and Magazine of Natural History. Vol. 4, new series. Nos. 23, 24

History of British Mollusca and their shells. By Prof. Forbes and S. Hanl Parts 23 and 24.

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The Quarterly Journal of the Geological Society. No. 20.

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Les genres des Plantes fossiles compares avec ceux du monde moderne. Par H. Goeppert. Livs. 1—5.

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Nachrichten von den vornehmsten Lebensumständen und Schriften Jetzlebender Aerzte und Naturforscher in und um Deutschland. Von D. F. Borneen. 3 vols. 8vo.

April 9th.

Catalogue of the New York State Library, January 1, 1850. From the Trustees.

Elements of Natural History. By W. S. W. Ruschenberger, M. D. 2 vols. 8vo. From the Author.

Illustrations of fossil foot-prints of the Valley of the Connecticut. By James Deane, M. D. From the Author.

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List of Quadrupeds brought by Mr. Burchell from Southern Africa, and presented by him to the British Museum, Sept. 1817.

Catalogue of the contents of the Royal Museum, No. 28 Leadenhall St., London. By Mr. C. Du Bois.

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Expériences chimiques et Physiologiques sur les Chara. Par M. Raspail.

Catalogue of the collection of British Quadrupeds and Birds in the museum of the Cambridge Philosoph. Society.

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Notice sur les devastations des Insectes nuisibles à l'Agriculture. Par M. Dagonet. (4 pamphlets in one vol.)

Contributions to Ornithology. By Sir Wm. Jardine. Parts 3, 4, 5, 6 and 7, for 1849. From Mr. H. E. Strickland, of England.

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The inaugural oration spoken 4th November, 1845, at the ceremony of laying the first corner stone of the London Institution. By Charles Butler, Esq. From the same.

Proceedings of the Amer. Assoc. for the advancement of Science. 2d meeting Aug. 1849. 8vo. From T. L. Moss, Esq.

Report of the Committee on Public Lands of the U. S. Senate, on Prof. Johnson's recent work on the Coal Trade of British America, February 15, 1850. From Prof. Johnson.

Papers and Proceedings of the Royal Society of Van Dieman's Land. Vol. 1. Part 1. May, 1849. From the Society.

Rules of the Royal Society of Van Dieman's Land, 1848. From the same.

Notes on the cultivation of the Vine and the Olive, and on the methods of making Wine and Oil in the South of Spain. By Lieut. Col. Sir T. L. Mitchell. From Dr. Morton.

April 23d.

Proceedings of the Zoological Society of London. Nos. 180—189. From the Society.

Transactions of the same. Vol. 3. Parts 5 and 6. From the same.

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Verhandelingen der Eerste Klasse van det Konin-Nederland-Institut van Wetenschappen, &c., te Amsterdam. 3d series. Vol. 1. Parts 3 and 4. From the same.

Tijdschrift voor de Wis-en Natuurkundige Wetenschappen. Vol. 3. Parts 1 and 2. From the same.

Försök till en Geognostisk-Mineralogisk Beschrivning ofver Tunabergs Socken i Södermanland af A. Erdmann. 8vo and atlas. From the Author.

Dr. Wilson presented the following, on the usual condition:—

Quarterly Journal of the Geological Society of London. No. 21.

Proceedings of the Zoological Society of London, illustrated. Parts 1 and 2, for 1849.

History of British Mollusca and their Shells. By Prof. Forbes and S. Hanley. Nos. 22, 25, 26.

Paxton's Magazine of Botany and Gardening. Nos. 9 and 12, October 1849, and January, 1850.

Memoirs of the Geological Survey of the United Kingdom. Decades 1 and 2.

Phycologia Britannica. By W. H. Harvey, M. D. Parts 44 and 45.

Monograph of recent and fossil Crinoidea. By T. Austin, Esq. and T. Austin, Jr. No. 8.

Conchologia iconica. By Lovell Reeve. Parts 82 and 83.

Abbild. und Bescreib. neuer oder wenig gekannter Conchylien. Von Dr. R. A. Philippi. Vol. 3. No. 6.

Palæontographica. Beiträge zur Naturgeschichte ver Vorwelt. Von Dr. W. Dunker und H. von Meyer. Vol. 1. Part 5.

Annals and Mag. of Nat. Hist. New series. Nos. 22, 25, 26, 27.

The Genera of Birds. By George R. Gray. Part 50.

Thesaurus Conchyliorum. By G. B. Sowerby, Jr. Part 10.

The Mammals of Australia. By John Gould. Part 2.

The Birds of Asia. By John Gould. No. 1.

Transactions of the Royal Society of London. Part 2. 1849.

Annales des Sciences Naturelles. August and September, 1849.

First and Second Report on the Coals suited to the Steam Navy. By Sir H. de la Beche and Dr. L. Playfair. Folio.

The Natural History of Ireland. By Wm. Thompson. Vol. 2. 8vo.

Memorie sulla storia et notomia degli animali senza vertebre del regno di Napoli: di Stefano delle Chiaje. 4 vols. 4to, and atlas folio.

History of British fossil Reptilia. By Richard Owen. Parts 1 and 2. 4to.

Lectures on the comparative Anatomy and Physiology of the vertebrate Animals. By Richard Owen. Vol. 2. 8vo.

Transactions of the Tyneside Naturalists' Field Club. Vol. 1. Parts 1 and 2.

Journal of the Royal Agricultural Society of England. Vol. 10. Part 2.

Annales de la Société Entomologique de France. 1me. serie, tomes 8—11. 2e. ser., tomes 1—6. 8vo.

Histoire naturelle des Lepidoptéres ou Papillons de France: par MM. Godart et Duponchel. 16 vols. and Supplement. 8vo.

Iconographie et histoire naturelle des Chenilles, pour servir de complement à l'hist. nat. des Lepidop. de France par MM. Godart et Duponchel. 2 vols. 8vo.

Catalogue Methodique des Lepidoptéres d'Europe. Par M. Duponchel. 8vo.

Iconographie et. hist. nat. des Coléopteres d'Europe. Par M. Le Comte Dejean et M. le Dr. Boisduval. 5 vols. 8vo.

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Catalogue of the Mollusca of Northumberland and Durham. By Joshua Alder 8vo. From the Author.

Catalogue of the Insects of Northumberland and Durham. Coleoptera. Part 8vo. By Jas. Hardy and Thos. J. Bald. From Mr. Alder.

Catalogue of the Fossils of the Permian System of the counties of Northumbe land and Durham. By Richard Howel. 8vo. From the same.

May 7th.

Dr. Morton, President, in the Chair.

An extract of a letter from J. Sharpe Macleay, Esq., dated Elizabeth Bay, near Sydney, 12th October, 1849, addressed to Dr. Morton, stating that he had transmitted to the latter "the cast of a fossil fish, illustrating the highest animal form yet discovered in the vast coal measures of the Eastern coast of New Holland. The head was wanting, but from analogy it most nearly resembles the modern *Lepidosteus*. The specimen was found at New Castle, a port about sixty miles north of Sydney, and noted for its coal mines.

Two other specimens of Sauroids of a distinct genus have been found at Paramalta, an inland town about fourteen miles from Sydney.

These are all the remains of Vertebrata yet found in strata of an earlier date than the Tertiary period."

Mr. Macleay also proposed to exchange Silurian or carbonaceous fossils, or plants and seeds of the colony, for those of this country, and enclosed a list of the latter which would be desirable. The list was referred to the Botanical Committee with power to act.

Dr. Morton also presented a communication addressed to him by P. A. Browne, Esq., dated Philadelphia, April 26, 1850, stating that he had been recently engaged in making an examination of the hair and portions of the scalp of some human heads, from Pachamahac and from Arica and Pisco, in Peru, and on comparing them with those of our modern Indians, he was prepared to demonstrate that they all belong to the same species, that viz. with cylindrical straight lank hair, which issues out of the epidermis at an acute angle, but the coloring matter is in the cortex, or in the cortex and intermediate fibres.

May 21st.

Dr. Bridges in the Chair.

A letter was read from Joel Y. Schelly, Esq., dated Hereford, Berks county, Pennsylvania, April 7, 1850, addressed to Dr. Leidy, announcing that he had transmitted to the Academy all the fossil remains in his possession, found in Upper Milford, Lehigh county, Pennsylvania, in 1848. Some other specimens in the hands of other individuals he would also endeavor to obtain for the Society.

On motion of Dr. Leidy the thanks of the Academy were presented to Mr. Schelly for the collection; which Dr. Leidy stated had been received, and was now in the possession of the Society.

May 28th.

Dr. Bridges in the Chair.

The Committee appointed at a meeting of the Society in January, to have such alterations made in the room adjoining the Library, as would adapt it to the extension of the latter, and the better accommodation of the books, reported that they had performed that duty according to the plan submitted to the Society, and that said room was now ready for the reception of the books.

Mr. J. D. Sergeant read a memorial, praying that a geologist be attached to the party accompanying the Commissioners appointed to survey the boundary of Mexico, and moved that copies signed by the officers of the Academy be forwarded to both Houses of Congress; which was agreed to.

Dr. Zantzinger offered the following, which was adopted: *Resolved,* That the thanks of the Society be tendered to Henry Bond Dewey, Esq., of Para, Brazil, for the elegant collection of insects from that country, presented by him at the last meeting. (See page 61.)

ELECTION.

Clement Biddle, Jr., Esq., of Philadelphia, and Mr. Samuel G. Rosengarten, of Philadelphia, were elected *Members;* and Henry Bond Dewey, Esq., of Brazil, was elected a *Correspondent* of the Academy.

June 4th.

Dr. Carson in the Chair.

On leave granted, Mr. Vaux, on behalf of Dr. Morton, offered the following resolutions.

Resolved, That this Society has learned with sincere regret, the death of their esteemed and venerable fellow member, Alexander Maclure at New Harmony, in Indiana, on the 9th of April last.

Resolved, That his name should be indelibly recorded in the annals of our Institution, as well for his various personal benefactions, as for his faithful and literal fulfilment of those most important objects which his brother, William Maclure, had designed, but did not live to accomplish.

Resolved, That we further cherish the memory of Alexander Maclure for the moral excellence of his character, his exacting probity and his practical benevolence.

The resolutions were unanimously adopted.

Mr. Vaux read from the North American and United States Gazette, the following printed letter relating to the death of Dr. William Gambel.*

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* Dr. Gambel's death was announced at a former meeting of the Academy, but the information was not then sufficiently authentic to authorize any action on the subject by the Academy.

Correspondence of the N. American and U. S. Gazette.

Mountain House, Alta California,
March 25th, 1850.

Messrs. Editors,—I trust you will pardon the liberty I take in offering to the citizens of Philadelphia, through your valuable paper, a tribute to the memory of an eminent and worthy Philadelphian, who has fallen in this wild and far-off country. I refer to the death of Dr. William Gambel, former Secretary of the Academy of Natural Sciences of your city, who left for California in the spring of 1849, taking the overland route, to collect specimens illustrating the natural history of the Far West, and to explore, to some extent, the prominent geological features of the country between the Rocky Mountains and the Great Sierra Nevada. He went from Independence to the upper crossing of the Kansas with a small company of gentlemen from Georgia, Florida, and Virginia. After which his company joined Indiana Company, No. 1, of which I had command, and with us he continued until we reached Fort Kearney, on the Great Platte. There he separated from us and joined a company commanded by Capt. Boon, of Kentucky, which followed the trail opened by Capt. Hudspeth's company, crossing the Sierra near the head of Sacramento valley. The trials of this rugged route across fearful mountains and great deserts proved too much for the Doctor's constitution, and on reaching his destination in California, he was seized with typhoid fever, of which he died. He had collected during his journey a large number of rare and interesting specimens, by which he had added largely to the rich store of knowledge he had previously gained. His loss is as sad as it is premature, and he sleeps in peace beneath the towering pines which cluster on a sunny hill side stretching up from the bright waters of the *Rio del Plumus*. He has departed early, but not unhonored, and though the afflicting dispensation will fall heavily on those to whom he was endeared by ties of relationship or friendship, yet their consolation will be strong in the knowledge that he fell in the midst of his honorable pursuit of knowledge, and the earnest and zealous unfolding of his natural and acquired gifts. Philadelphia owes to his memory a lasting tribute of respect for his science, virtue, worth, talent, and energy.

Very respectfully yours,
D. B. Woods.

Mr. Vaux then offered on the part of Dr. Morton, the following resolutions, which were unanimously adopted, and the Recording Secretary was directed to send a copy of the same to the family of the deceased.

Resolved, That this Society has learned with deep regret, of the decease of their esteemed associate, Dr. William Gambel, in California on the 13th December last.

Resolved, That we cherish for Dr. Gambel the highest sentiments of respect and regard, not only for his extensive and accurate attainments in Botany and Ornithology, but also for the excellence of his heart, his amiable manners, and his many virtues.

Resolved, That we regard his untimely death in a distant land as a painful bereavement to private friendship, and a misfortune to the interests of science.

June 11th.

Dr. MORTON, President, in the Chair.

Mr. P. A. Browne expressed his views in relation to the peculiarities of the hair in man and other mammalia, and more particularly on the absence of a central canal in the hair of certain races of the former, on which he proposes to found specific differences. After some conversation among the members on the organization of hair, Mr. Browne offered a resolution that a committee be appointed to make microscopic investigations on the subject, which was adopted, and the following committee appointed, viz: P. A. Browne, Prof. Haldeman, and Dr. Morton.

June 18th.

Dr. MORTON, President, in the Chair.

A letter was read from the Royal Society of London, dated Somerset House, March 20, 1850, returning acknowledgments for recent numbers of the proceedings of the Academy.

Mr. Cassin read a paper entitled, "Descriptions of new species of the genera Vidua, Hyphantornis, Hirundo, Atticora, Acanthylis, and Cypselus, specimens of which are in the Academy of Natural Sciences of Philadelphia," which was referred to the following committee, Drs. Wilson, Townsend, and Heerman.

Mr. Moss read a description, with a figure, of a new Carpolite from Arkansas, which was referred to the following committee, Dr. Bridges, Mr. Conrad, and Dr. Hallowell.

June 25th.

Dr. MORTON, President in the Chair.

The committee to whom was referred Mr. Cassin's descriptions of Birds in the collection of the Academy, read at last meeting, reported in favor of publication in the Proceedings.

Descriptions of new species of Birds, specimens of which are in the collection of the Academy of Natural Sciences of Philadelphia.

BY JOHN CASSIN.

Vidua Verreauxii, nobis. Vieill. Ois. Chant. pl. 37 ?

♂. *Form.*—Generally resembling Vidua paradisea, (Linn.) Swains. B. of W. Af. I, pl. 11, but is larger, the two longest tail feathers taper gradually to the end from near the middle of the feather, the outer (or upper) webs are very narow, and they present but a slight degree of convexity when compared with those f V. paradisea. In the two specimens which I am now about to describe, the ills and feet are decidedly larger and stronger.

Dimensions.—Total length of skin from tip of bill to end of tail 15½ inches. Wing 3 1-10. Tail 12 inches.

Colors.—Wide collar on posterior part of the neck (or nape) and the belly pale ulvous. Breast rich glossy chesnut, thighs pale buff with some black feathers. Upper part of the head, throat, under tail coverts, and all remaining parts of the ody black. Shorter tail feathers slightly edged with white at their tips.

♀. Without long tail feathers, whole plumage cinereous, streaked with brownish black, pale beneath.

Hab.—Abyssinia.

Obs.—Two males and one female of this species, now in the collection of this Academy, have recently been received from M. Jules Verreaux of Paris, in a note accompanying which, he expresses his conviction that they are distinct from the ommon species, (V. paradisea.) Upon examination and comparison with ighteen specimens of the latter, I entirely coincide with M. Verreaux, and have accordingly described it, hoping he will accept my specific name as a slight ribute to his great accomplishments as a naturalist, and his enthusiastic attachment to our favorite science.

The species now described bears a strong general resemblance to the common pecies, but may readily be distinguished by the different shape of the long tail eathers. In the two males now before me the nuchal collar is pale, in which respect they differ from the V. paradisea, and also from the plate given by Vieillot, which I have little doubt, however, is intended to represent the present bird. For the purpose of comparing the general appearance of the two species, the plates of Vieillot and Swainson above cited are sufficient for consultation.

Hyphantornis badius, nobis.

♂. *Form.*—Small for a typical species, wings medium, first quill very short, almost spurious, fourth and fifth longest and nearly equal, tail rather short.

Dimensions.—Total length of skin from tip of bill to end of tail about 5 inches, wing 3, tail 2 inches.

Colors.—Head above and mask including eyes and extending to the breast, black, middle of the belly, and tail coverts above and below bright yellow, all other parts of the body bright reddish brown, (or burnt sienna brown.) Wing feathers brownish black, externally with narrow edges of greenish yellow, and with broad internal edges of pale yellow very conspicuous upon viewing the wing from below. Tail greenish yellow.

Hab.—Fazoglou, Eastern Africa.

Obs.—A small species related to H. rubiginosa, (Rüpp.) and perhaps to H. castaneofusca, (Less.) but appears to be quite distinct. Several specimens from the Rivoli collection are now in the collection of the Academy, some of them are labelled "P. mordoreus," which I have not succeeded in finding.

This bird may possibly be the adult of one of the plain plumaged species described by Dr. Smith or Mr. Ruppel.

Atticora hamigera, nobis.

Form.—Wings long, with the first primary longest and curved, several of the shorter primaries slightly sinuated at their points on the inner webs, tips of secondaries emarginate. External edge of the first primary (or edge of the wing) furnished with a row of hooks or reversed bristles very obvious to the touch and discernable with the naked eye. Tail long and broad, deeply emarginate. Legs slender.

Dimensions.—Total length of skin from tip of bill to end of tail 5¾ in. Wing 4 4-10. Tail 3¼ inches.

Color.—Entire plumage fine black with a green gloss, inferior surface of the wings and tail paler and without lustre.

Hab.—Port Natal, Eastern Africa.

Obs.—Four specimens of this species are in the collection of the Academy, several of which from the Rivoli collection were labelled "Hirundo velox, Vieill." It is not the bird figured by Le Vaillant, which belongs to another genus, and is not therefore the species intended by Vieillot.

Cypselus leucopygialis, nobis.

Form.—Robust, wings long, exceeding the tail, primaries slightly curved with the second longest. Tail rather short, truncate, scarcely emarginate.

Dimensions.—From tip of bill to end of tail 5¼ inches. Wing 5¼. Tail 2 inches.

Colors.—Rump white, throat pale, nearly white; back and upper surface of the wings and tail brownish black with a green gloss, head and entire under parts dull sooty brown. Inferior tail coverts with a slight subterminal black band and minutely tipped with white.

Hab.—Sumatra ?

Obs.—This species resembles the Cypselus affinis, Gray, but is much larger. It is quite distinct from that or any other species known to me. One specimen only is in the museum of the Academy, which bears a label having Sumatra as the locality, and was received from Europe in a collection sent by Mr. Edward Wilson.

Acanthylis cinereocauda, nobis.

Form.—Wings very long, with the second primary longest. Tail rather short with the feathers broad and the terminal acute points conspicuous, upper tail coverts long and ample.

Dimensions.—Total length of skin from tip of bill to end of tail 4 inches. Wing 4 8-10. Tail 1 3-10.

Colours.—Rump, upper and under tail coverts and tail above and below pale brownish cinereous, or mouse color; shafts of the tail feathers black. All other parts of the plumage brownish black, deeper and with a greenish lustre above, dull and paler below.

Hab.—South America.

Obs.—The species now described resembles Acanthylis spinicauda, (Temm. Pl. Enl. 726, but may readily be distinguished by the entirely black plumage of the under parts and by the pale colour of the tail. Though not so large a bird as the *A. spinicauda*, its wings are longer. Two specimens are in the museum of the Academy, one of which, sent from Paris by Mr. Edward Wilson, is marked as coming from South America.

ıdo scapularis, nobis.
—That of a typical Hirundo. Wings rather long, first primary longest,
all the primaries with oblique terminal indentations, secondaries
ate.
sions.—Total length of skin from tip of bill to end of tail 5½ inches.
3-10. Tail 3 inches.
.—Scapulars and inferior wing coverts white. Entire plumage above,
g wings and tail, black, with a fine violet lustre, darkest upon the head,
white with a yellowish tinge, shafts of inferior tail coverts black, fea-
the back white at their bases, some feathers on the breast black at their

-Eastern Africa.
-Appears to be allied to *H. leucosoma*, Swainson, but is larger, and
the scapulars are conspicuously white, it has no spot on the wing. One
n only in the Rivoli collection.

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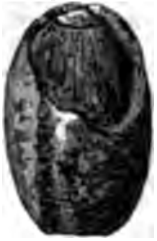
committee on Mr. Moss' description of a new Carpolite from
as, reported in favor of publication in the Proceedings.

Description of a new Carpolite from Arkansas.

By Theodore F. Moss.

nocarpum Woodruffii.
very perfect specimen of a Carpolite was found in a fissure filled with
the clay slate, ten miles north of Little Rock, Arkansas, and forty miles
the coal formation, where it is probably in place. It is now converted
stone.
gure represents the fruit in its natural size, showing the pore for the
of the embryo at the base. The epicarp is three
nd therefore the fruit belongs to the Monocotyledonous
plants, and is about one-eighth of an inch in thickness.
nner part or endocarp is striated from the circumfe-
the pore (hilum), for the passage of the embryo.
e called the specimen *Trigonocarpum Woodruffii*, in
' William E. Woodruff, Esq., of Little Rock, a gentle-
o has done much to advance the knowledge of the
wealth of Arkansas.



ELECTION.

. William McMichael, of New York, was elected a *Correspon-*
the Academy.

DONATIONS TO MUSEUM

In May and June, 1850.

May 7th.

llection of Reptilia from Georgia, of the genera Bufo, Siren, Amphiuma,
lon, Batrachoseps, Spelespes, Ambystoma, and Desmognathus. From Dr.
Jones, of Georgia.
ollection of Crustacea, Insects, and Reptilia. From the Philadelphia
n, in exchange.
um of a small species of Cervus from California. From Mr. F. Shafhirt.
l fruit ?, from Mullica Hill, New Jersey. From Mr. Edward Harris.

May 14th.

llection of Eggs of thirty species of American Birds, viz., Cathartes aura,
s leucocephalus, Pandion haliaetus, Strix ——, Strix acadica, Caprimulgus
s, Sitta carolinensis, Turdus polyglottus, Turdus aurocapillus, Muscicapa
, Vireo olivaceus, Vireo gilvus, Corvus ossifragus. Icterus Baltimore,
za americana, Emberiza savanna, Pyranga rubra, Fringilla hyemalis, Frin-
udacuta, Picus pubescens, Columba migratoria, Tetrao cupido, Ardea
s, Charadrius melodus, Totanus flavipes, Recurvirostra americana, Rallus
nsis, Rhyncops nigra, Anas clypeata, Anas obscura. Presented by Mr.
Ashmead.
it specimen of Boschas discors. Presented by Mr. Henry B. Hirst.

May 21st.

lection of Insects from Brazil, consisting of: Lepidoptera, 345 species,
cimens; Coleoptera, 115 species, 175 specimens; Neuroptera, 24 species, 46
ns; others 14 specimens. Presented by Henry Bond Dewey, Esq., of
rough Dr. Henry Bond of this city.
lection of Saurian remains in a matrix of hard conglomerate, belonging to
rer red sandstone formation (?) of Upper Milford, Lehigh county, Penn-
, fifty-eight specimens; besides numerous small fragments of bone.
d by Dr. Joel Y. Schelly.

June 4th.

of Phytolephas macrocarpa. From Dr. Wilson.
nia ——— ? From Dr. Anderson, of New York.

June 11th.

l of Red Oxide of Copper; from the Amherst Copper Mines, Virginia.
Ir. E. W. Roberts.
specimens of Minerals from Arkansas. From Mr. T. F. Moss.

June 18th.

rite, Vesuvian, Anatos Feldspar, Bronzite, Phaslin, Zophagolite, Arra-
Telluret of Silver, Black oxide of Copper. Also a new Carpolite from
s. From Mr. Moss.
ates ductor, Antherina menidia, Triton niger, Hippa emerita. From Miss
is, of Germantown.

DONATIONS TO LIBRARY

In May and June, 1850.

May 7th.

Contributions to Conchology. No. 7. By C. B. Adams. From the Author.

Reports of the Joint Commissioners, and of Col. Graham, U. S. Engineers, in relation to the boundary between the States of Pennsylvania, Delaware, and Maryland, (corrected copy.) From Col. Graham.

The classification of mankind by the hair and wool of their heads. By Peter A. Browne. From the Author.

May 14th.

A response to a professor, and a speculation on the Sensorium. By B. Dowler, M. D. From the Author.

Third annual report of the Regents of the University of New York on the condition of the State Cabinet of Natural History, and the historical and antiquarian collection. From the Regents.

Report of the Select Committee of the Legislature of 1849, on the publication of the Natural History of the State of New York; made January 2, 1850. From the same.

The American Journal of Science and Arts. 2d series. No. 27. May, 1850. From the Editors.

The following were presented by Dr. Wilson on the usual condition:—

Annales de la Société Entomologique de France. No. 3, for 1849.

Revue et Magasin de Zoologie. No. 12, 1849, and No. 1, 1850.

Archiv für Naturgeschichte. Von F. A. Weigmann. No. 4, 1848, Nos. 1, 2, 1849.

Zeitschrift für Malakozoologie: von K. T. Menke, M. D., und Dr. L. Pfeiffer. Nos. 2, 5, 6, 7, 8, 9, 1849.

Comptes rendus. Tome 29, No. 7. Tome 30, Nos. 1—8.

The London Athenæum for February and March, 1850.

Illustrations Conchyliologiques. Par M. Chenu. No. 81.

Monographie des Odynéres de la Belgique. Par G. Wesmael.

De Stalactites Souterraines ou pretendus Fulgorites. Par M. Desvaux.

Tableaux synoptiques et methodiques des genres des Nemazoaires. Par [illegible] Gaillon.

Catologo de los Moluscos terrestres y de Agua dulce observados en España. Por el Doctor M. P. Graells.

Monographiæ Libellulinarum Europæarum specimen. Auctore P. L. Vander Linden.

Lectiones publicæ de Vermibus intestinalibus imprimis humanis quas habuit in Musæo Rer. Nat. Acad. Lund. 1784 A. J. Retzius.

Note sur des Polypiers fossiles: par M. Alcide D'Orbigny.

Observations sur les Apiaires Melipomides: par Max. Spinola.

Descrizione d'un nuovo rettile fossile della famiglia dei Paleosauri, e di due pesci fossili trovati nel calcareo nero, sopra Varenna sul Lago di Como dal Nob. Sig. Lud. Trotti; con alcune lessione geologiche del Prof. Guiseppe Balsamo-Crivelli.

Saurorum tabula analytica; Chelonorum tab. analyt.; Prodromus systematis Herpetologiæ. (C. L. Bonaparte.)

Catalogue methodique des Crustacés terrest. fluviat. et marines, receuilles dans le departement du Calvados. Par M. de Brébisson.

Tableau de la distribution methodique des espéces minérales suivie dans le cours de Mineralogie fait au Muséum Royal d'Hist. Nat. en 1827. Par M. Alex Brongniart.

Description des Entomostracés fossiles de la Craie de Maestricht. Par J. Bosquet.

Sur la multiplication des Sangsues. Par M. Huzard Fils.

Monographie des Sangsues med. et officin. Par A. Charpentier.

Clavis systematicæ distributionis generum Testaceorum in Museo Mediolanensi extantium.

re pratique des Sangsues. Par Joseph Martin.
lle classification des Mouches a deux ailes (Diptera, Lin.) Par. J. L.

pteres du Mexique. Par A. Chevrolat. 8 Livs.
logia Comense. Par —— Monti.
gia della Provincia e Diocesi di Como.
Langsfeld. Beschreibung der Bandwurme.
re naturelle des Papillons. Par M. O. F. Constant.
ia fisica y politica de Chile. Par Claudio Gay. Texte 8vo. 50 livs.,
folio. 21 livs.

June 4th.

ires de la Société de Physique et d'hist. nat. de Genéve. Vol. xii. pt. 1;
and 2d supplements to same. From the Society.
ilson presented the following on the usual condition :—
actions of the Royal Irish Academy. Vols. 1 to 13. 4to.
actions of the Geological Society of Cornwall. Vols. 3, 4, and 5. 8vo.
actions of the Royal Society of Edinburgh. Vols. 5, 6, 7, 8, and 10 to
.
actions of the Royal Asiatic Society. Vols. 1 to 10. 8vo.
l of the Royal Geographical Society of London. Vols. 1 to 19, and index
1—10. 8vo.
argh Journal of Natural and Geographical Science. 1st and 2d series.
8vo.
argh Journal of Science: conducted by David Brewster, LL. D. Vols.
8vo.
ctions of the Botanical Society of Edinburgh. Vols. 1 to 3. 8vo.
ograph of the Testudinata. By Thomas Bell. No 8. Folio.
lanzungsgeschichte der gesammten Vögel. Von F. A. L. Thienemann.
d 6.
ondon Athenæum for April, 1849. 4to.
nalyst: a monthly magazine of Science, Literature and the Fine Arts.
-10. 8vo.
ctions of the Natural History Society of Northumberland. 2 vols. 4to.
ctions of the Bombay Literary Society. 3 vols. 4to.
lex to the Anatomical and other papers of the Transactions of the Royal
f London. 4to.
ses to the Geological Society of London for 1832, '36, '37, '38, and '42.

s of general Science. By Robert D. Thomson, M. D. 4 vols. 8vo.
urnal of Science: conducted by —— Brande. 1st, 2d, and 3d series.
8vo.

June 11th.

of Prof. Bache, showing the progress of the U. S. Coast Survey for the
g October, 1849. From Mr. Moss.
Journal of Natural History. Vol. 6. No. 2. 8vo. From the Boston

heca helminthologica: edita ab Adolpho Modeer. 8vo. Deposited by
. Griffith.
ffers Testaceo-theologia. 8vo. From the same.
rasti de historia plantarum libri 8: de causis sive generatione plan-
ri 6. Theodori Gaza interprete. Folio. From the same.
ytemeister Bibliothecæ appendix, folio 1735. Nummotheca atque rariora
ana, &c., D. Rud. Capello P. P. edita. From the same.

June 18th.

ilson presented the following on the usual conditions:
and Magazine of Natural History. Vol. 5. 2d series. No. 28.
ory of British Mollusca. By Prof. Forbes and S. Hanley. No. 28.
rus Conchyliorum. By G. B. Sowerby, Jr. Part xi.
logia iconica. By Lovell Reeve. No. 84.
gia Britannica. By W. H. Harvey, M. D. Part 47.

Comptes rendus. Nos. 9—12. Tome 30.

Isis von Oken. No. 12. 1848.

Revue et Magasin de Zoologie. No. 2. 1850.

Zeitschrift fur Malakozoologie. Nos. 10, 11, 12. 1849.

Études sur les Echinides fossiles du Departement de l'Yonne. Par M. Gustave Cotteau. Livs. 1, 2, 3.

De animalibus quibusdam e classe Vermium Linnæana, in circumnavigatione terræ auspicante Comite N. Romanzoff duce O. De Kotzebue an. 1815—'18 peracta, observatis A. de Chammisso. No. 1. 4to.

Histoire naturelle, gen. et partic. des Mollusques. Par M. de Ferussac: continue par G. P. Deshayes. Livs. 35 et 36. Folio.

Memoirs of the Literary and Philosophical Society of Manchester. Vols. 3, 4, 6, 7, and 8.

Natural History of the British Entomostraca. By William Baird, M. D. 8vo.

Reports and Papers on Botany. Edited by Arthur Henfrey. 8vo.

Recherches sur les Poissons fossiles. Par M. Louis Agassiz. Texte tomes 5, 4to.; Planches tomes 5, folio.

Nouveau Manuel d'Anatomie descriptive, d'aprés les cours de MM. Beclard, Blandin, Cloquet, &c. 12mo.

Nouvelle Flore des Environs de Paris. Par F. V. Merat. 3^{me} ed. Vol. 2. 12mo.

Traité d'Anatomie descriptive. Par Hippolyte Cloquet. 4^{me} ed. 2 vols. 8vo.

De l'influence des agens physiques sur la Vie. Par W. F. Edwards, D. M. 8vo.

Univers Pittoresque; histoire et description de tous les Peuples. Europe tome 1; Asie tomes 4; Afrique tomes 2. 8vo.

Précis d'Anatomie pathologique. Par G. Andral. 3 vols. 8vo.

Traité d'Anatomie chirurgicale, ou Anatomie des regions considérée dans ses rapports avec la chirurgie. Par Alf. A. L. M. Velpeau. 2 vols. 8vo.

Cours de Pharmacologie, ou traité élémentaire d'Hist. nat. medicale de Pharmacie et de Therapeutique. Par. F. Foy. 2 vols. 8vo.

Physiologie des Passions, ou nouvelle doctrine des sentimens moraux. Par J. L. Alibert. 2d edition. 2 vols. 8vo.

Narrative of a Mission to Bokhara in 1843—'46. By the Rev. Joseph Wolf, D. D. 8vo.

Memoirs official and personal, with sketches of travel among the Northern and Southern Indians. By T. L. McKenney. 2 vols. in one. 8vo.

Travels over the table lands and Cordilleras of Mexico in 1843 and '44. By Albert M. Gilliam. 8vo.

Letters and Notes on the manners, customs, and condition of the N. American Indians. By George Catlin. 2 vols. 8vo.

Incidents of Travel in Yucatan. By John L. Stephens. 2 vols. 8vo.

History of the Life and Voyages of Christopher Columbus. By Washington Irving. 2 vols. 8vo.

Narrative of a Journey through the upper provinces of India, from Calcutta to Bombay, in 1824-'25. By the late Rt. Rev. Reginald Heber, D. D. 2 vols. 8vo.

Incidents of Travel in Central America, Chiapas, and Yucatan. By John L. Stephens. 2 vols. 8vo.

Voyages and discoveries of the companions of Columbus. By Washington Irving. 8vo.

Journal of the Royal Agricultural Society of Great Britian. Vols. 1—10. 8vo.

The American edition of the new Edinburgh Encyclopœdia; conducted by David Brewster, LL. D. 18 vols. 4to.

American Ornithology. By Alexander Wilson. With a sketch of the author's life. By George Ord. Text 3 vols. plates 1 vol. 4to. (Edition of 1828.)

History of the Indian tribes of North America. By T. L. McKenney and James Hall. 3 vols. Folio.

Journal of the Franklin Institute from 1837 to 1850, 27 vols. 8vo. (Completing the series in the Library.)

Encyclopædia of Chemistry. By James C. Booth. 8vo.

Conspectus generum Avium. By Charles L. Bonaparte. pp. 1—160.

July 2d, 1850.

Prof. Horner in the Chair.

A letter was read from the Royal Society of Copenhagen, dated 10th November, 1849, acknowledging the receipt of late numbers of the Proceedings of the Academy.

Mr. Vaux announced the decease of Dr. R. Eglesfeld Griffith, one of the Vice Presidents of this Institution, which took place in this city on Wednesday, 26th June, 1850.

July 16th.

Mr. Phillips in the Chair.

A letter was read from the Librarian of the British Museum, returning thanks for recent numbers of the Academy's Proceedings.

Dr. McEuen exhibited a portion of the charred bark taken from one of the trees in the district which had suffered from the recent extensive conflagration, and which was covered with a pink colored fungus, in masses somewhat spheroidal in form, and nearly half an inch in diameter. The dead and withered bark of the shade trees, of many species throughout the district, was generally covered with this fungus.

July 30th.

Dr. Morton, President, in the Chair.

The Monthly Report of the Corresponding Secretary was read and adopted.

Dr. Bridges, after some appropriate preliminary remarks on the character of the late Dr. Griffith, offered the following resolutions, which were unanimously adopted.

Resolved, That the members of this Society are impressed with unfeigned sorrow at the death, on the 26th ult., of their esteemed fellow member and Vice President, Dr. Robert Eglesfeld Griffith.

Resolved, That Dr. Griffith endeared himself to us by the uniform urbanity of his manner, by his remarkable attainments in natural science, and by his devotion to the interests of this Institution.

Resolved, That the Academy records, with pleasure and gratitude, its indebtedness to Dr. Griffith, for extensive and valuable additions to its Library and Collections, and, above all, for the donation of his magnificent collection of shells, on which he had bestowed much of the leisure of twenty-five years of his life.

Resolved, That a copy of these resolutions be communicated to the family of the deceased.

On motion of Mr. Phillips it was

Resolved, That the Society, at the Business meeting in September next, proceed to the election of a Vice President in place of Dr. Griffith, deceased.

ELECTION.

Dr. James C. Fisher, of Philadelphia, was elected a *Member*, and the following were elected *Correspondents* of the Academy:—John R. Bartlett, Esq., of New York, and T. Charlton Henry, M. D. of Syracuse, N. Y.

August 20th.

Dr. Morton, President, in the Chair.

A letter was read from M. Alfred Malherbe, President of the Nat. Hist. Soc. of Metz, France, dated May 29th, 1850, acknowledging the receipt of his notice of election as a Correspondent.

A letter was read from Dr. Franklin B. Hough, dated Somerville, New York, August 12th, 1850, accompanying the donation of a collection of minerals from that vicinity, and stating his desire to make further contributions in this and other departments, if agreeable to the Society.

A paper by Mr. Cassin, describing new species of Birds of the genera Paradisea, Pastor and Buceros, and intended for publication in the Proceedings, was read and referred to Dr. Wilson, Dr. Townsend, and Mr. E. Harris.

A paper was read entitled, "Descriptions of ten new species of Crinoidea, from the sub-carboniferous Limestone of Iowa, collected during the U. S. Geological survey of Iowa, Wisconsin, and Minesota, in the years 1848–9, by David Dale Owen, and B. F. Shumard, M. D.:" which being intended for publication in the Journal, was referred to Mr. Conrad, Dr. Wilson, and Dr. Morton.

A paper was also read entitled, "Notice of fossil remains brought by Mr. J. Evans from the 'Mauvais Terres,' or bad lands of White River, 150 miles west of the Missouri, by D. D. Owen, J. G. Norwood, and John Evans," of which the following is an abstract:—

This remarkable collection consists of numerous teeth, fragments of bones, and twenty skulls, some of which last are in an excellent state of preservation. They belong to the orders *Ruminantia* and *Pachydermata*. For the present, the authors of the memoir propose to give only a general and provisional description, as the basis of a full report on a future occasion. The following species are particularly noticed.

1. Palæotherium? Proutii. These remarkable remains are thus named in compliment to Dr. Prout, of St. Louis, who first noticed them in the American Journal of Science and Arts. The generic characters, however, are not yet satisfactorily decided.

2. Another species is allied to *Chæropotamus*, and still more to *Hyracotherium*, but is probably distinct. The bones, skulls, and teeth of this animal were found, with the greater part of the other remains, in a flesh-colored calcareous marl.

Mr. Evans' reports have traced the cretaceous formation, with its characteristic fossils, from the mouth of the Iowa river to about 300 miles below the Yellow Stone. In this region of country, and west 130 miles from Pierre Chouteau, (on the Missouri four miles above Teton river,) Mr. Evans noticed the following fossils:—Nucula Hammeri ?, Ammonites Conradi, *Morton*, Inoceramus Crispii ? Inoceramus planus, Inoceramus mytilloides ?, Inoceramus Cuvieri, Nautilus Dekayi, *Morton*, Cucullœa vulgaris, *Morton*, Pholadomya occidentalis, *Morton*, Gryphœa Pitcheri, *Morton*.

Also—two species of Avicula, a Lucina, a Pyrula ?, several undetermined species of Ammonites and Baculites, two species of Scaphites, and a Diceras ?

On Sage creek, a southern tributary of the Chayenne, heading on the "bad lands," Mr. Evans obtained three species of Inoceramus, two of Ammonites, Nautilus Dekayi, Cucullœa vulgaris, &c.

August 27th.

Dr. Morton, President, in the Chair.

The Committee to which was referred Mr. Cassin's paper, read at last meeting, reported in favor of publication in the Proceedings.

Descriptions of new species of Birds of the genera Paradisea, Pastor, and Buceros, and a proposition to re-name others of the genera Alcyone and Hirundo.

By John Cassin.

1. ***Paradisea Wilsonii***, nobis.

Form.—Specimen about to be described probably not fully adult, somewhat mutilated, skin of the hinder part of the head wanting. Plumage compact, with elongated feathers from the sides of the neck, and two plumes having their origin at the base of the tail, which latter are curved into circles of about one inch diameter. First primary spurious, third and fourth longest and nearly equal. Exposed portion of the plumage of the back, thread-like; feathers on the belly broad and truncate. Subgenerically related to Paradisea magnifica, Lath.

Dimensions.—Total length of skin from tip of bill to end of tail about 7½ in., wing 3¾, tail 1½ inches.

Colors.—Back crimson, which color is completely enclosed by an edging of black, and forms a somewhat cordate mantle. Large nuchal spot pale yellow. Front and chin black. Wing coverts and quills hair brown, greater coverts and primaries narrowly edged, secondaries and tertiaries broadly edged with crimson, some of the more exposed tertiaries almost entirely of this color, and tipped with black. Tail and coverts above and below hair brown. Ornamental plumes of the tail steel blue. Elongated feathers on the side of the neck black, with a beautiful coppery lustre, and tipped with bright green. Under parts from the neck to the abdomen silky green, the feathers brown at their bases, and having intermedial (between the brown and the green colors) triangular spots of a deeper glossy green, inclining to blue upon the neck and breast; truncate feathers of the sides and belly tipped with deep shining green, posterior part of abdomen dull brownish black.

Hab.—New Guinea ?

Obs.—This very handsome Paradise bird is one of the most valuable and interesting of the many contributions to the collection of this Academy, made by Mr. Edward Wilson, of Lydstip house, Pembrokeshire, to whom I have taken the liberty of dedicating it, as a slight acknowledgment of his valuable services to the cause of the zoological sciences in this country.

This species is a congener of Paradisea magnifica, Lath., but does not resemble that, nor any other known species to an extent sufficient to render special designation necessary. All the species are in the collection of the Academy.

The specimen now described was obtained by Mr. Wilson in England, but bears no label indicating locality. It is probably not fully adult.

Pastor nigrocinctus, nobis.

Form.—Specimen now about to be described much mutilated, cranium destroyed and skin of the head much injured, nearly the whole of the wing feathers and legs wanting. Feathers of the hind head somewhat elongated, exposed portion of the plumage of the rump and tail coverts filiform, tail feathers broad, rather abruptly terminated and slightly acuminated. Aberrant, possibly a Gracula.

Dimensions.—Total length of skin from tip of bill to end of tail about 8 inches, tail 3 inches.

Colors.—Head (entirely ?), broad band completely encircling the middle of the body; (wings ?) and tail black with a greenish metallic lustre.

Broad band encircling the anterior third portion of the body, including breast and neck above and below, and anothei broad band encircling the posterior third portion of the body including abdomen, rump, aud tail coverts, saffron yellow, paler on the under tail coverts. Bill yellow.

Hab.—New Guinea ?

Obs.—I have seen two specimens only of this bird, one of which is in a museum at Albany; the other is the property of the Academy, and is the specimen now before me. Both were imported by Mr. J. G. Bell, of New York, deservedly well known as a naturalist and taxidermist, by whom the species was first pointed out to me as probably undescribed, and who has also had the kindness to inform me that he received them with skins of Paradise birds. They are mutilated in the same manner as those usually are, and have been subjected to similar methods of preservation; from which facts I have inferred that they may be from New Guinea.

3. *Buceros Fistulator*, nobis.

Form.—Very similar to that of Buceros Buccinator, Temm., but is much smaller. Specimen now described probably not fully adult, bill nearly simple.

Comparative Dimensions.

	B. Buccinator.	B. Fistulator.
Total length of skin from tip of bill to end of tail	25 inches,	17 inches
Wing,	12 "	9½ "
Tail,	10½ "	7¼ "

Colors.—Very similar to those of Buceros Buccinator, Temm. Lower medial part of breast, abdomen, thighs, under tail coverts, inferior wing coverts, tips of secondary and tertiary quills, and tips of external tail feathers, white, all other parts black with a greenish lustre.

Hab.—Western Africa.

Obs.—Two specimens of the bird now described are in the collection, one of which presented by Mr. Edward Verreaux, of Paris, has the plumage of an adult bird, though its bill is without appendages. In all other respects both specimens are very similar to B. Buccinator, Temm., Pl. Col. 276, but are so much smaller that I cannot think it possible they are young birds of that species.]

4. *Alcyone Lessonii*, nobis.

"Ceyx azurea, Less."

"Alcedo azurea, Lath." Lesson, Voy. Coquille, I. p. 690.

Form.—Much resembling that of Alcyone azurea, (Lath.) Gould B. of Aust. II, pl. 25, but is larger; the bill is much thicker and wider.

Dimensions.—Total length of skin from tip of bill to end of tail about 6¾ inches, wing 3½, tail 1½ inches.

Colors.—Generally resembling those of A. azurea, but upon the upper surface of the body are of a deeper and more uniform blue. Entire plumage above deep azure blue, which color extends somewhat upon the sides of the breast. Quills and tail beneath brownish black, the former narrowly edged exteriorly with blue. Small narine spots and another large spot on each side of the neck, yellowish white. Throat nearly white, all the other under parts of the body deep fawn yellow inclining to reddish on the sides.

Hab.—Havre de Dorey, New Guniea.

Obs.—This species is described by Mons. Lesson, as above, but is quite different from the A. azurea or either of the other nearly allied Australian species, being decidedly larger and in all respects more robustly organized. It is not figured in Voy. Coquille, though a complete description is given.

One specimen only is in the collection of the Academy, which is another of the valuable acquisitions made in Paris by Mr. Edward Wilson.

5. *Hirundo Gouldii*, nobis.

Hirundo frontalis, Gould. Proc. Zool. Soc. London 1837, p. 22, and Voy. Beagle, Birds, p. 40, (1841.)

Obs.—I propose to apply this name, Hirundo Gouldii, to the species described by Mr. Gould as above in 1837; the name given by him, Hirundo frontalis, having been previously applied to another species by Quoy and Gaimard, Voy. Astrolabe, Zoologie I, p. 201, (1830.)

Several specimens of both species are in the collection of the Academy.

The Committee to which was referred a paper by Drs. D. D. Owen, and B. F. Shumard, describing new species of Crinoidea from the subcarboniferous limestone of Iowa, &c., reported in favor of publication in the Journal.

A letter was read from Dr. J. H. Troschel, Professor of Zoology in the University of Bonn, and present editor of the Archiv. für Naturgeschichte, announcing the transmission to the Academy of recent numbers of that work, and expressing his desire to exchange for the publications of the Academy, and requesting permission to make translations of papers from the latter for insertion in his work. Whereupon it was on motion ordered, that the Editor of the "Archiv. für Naturgeschichte" be placed upon the exchange list of the Journal.

Dr. Morton announced the late decease of Prof. Gerard Troost, at Nashville, Tenn., at a very advanced age. The deceased was the first elected President of this Institution.

DONATIONS TO MUSEUM

In July and August, 1850.

July 16th.

Lepidodendrum obovatum, from Sharp Mountain, Stony Creek, Penn.; Sigillaria ———, from do.; Phosphate of Lead, Sulphuret of Silver, Fluor spar on Quartz, and Antimonial Silver ore, from Saxony; Pyruite, Tungstate of Iron, and Oxide of Tin, from Bohemia; Blende and Boracite, from Hungary; magnetic Oxide of Iron, from Saxony; Arragonite and Albin, from Bohemia; Carbonate with Sulphuret of Iron, from Bavaria; Sulphate of Barytes, and red Hæmatite of Iron, from Saxony. Presented by Mr. Theo. F. Moss.

A collection of minerals from the Plumbago mine, near Feasterville, Bucks co., Penn. From Mr. Joseph M. Cardeza, of Philadelphia.

July 23d.

A small collection of Lepidoptera, from California. From Dr. A. L. Heerman.

A collection of four hundred and fifty specimens of European and South American Lepidoptera. From Mr. Becker, of Paris, in exchange.

August 6th.

Fine specimes of Phosphate of Lead, and of Carbonate of Lead, from Phœnixville, Chester co., Penn. From Mr. J. Christman.

A skeleton of Gallus communis, of remarkably large size. From Mr. John Lambert.

One Mormon fratercula, young, Europe: two Hybrids of Canary and European Goldfinch; two Eggs of Hæmatopus palliatus, United States; four of Fringilla maritima, do.; one of Sterna stolida, do.; three of Sterna acuflavida, do.; four of Corydalina bicolor, do. From Dr. A. L. Heerman.

Picus querulus, (mounted) near Philadelphia; Picus erythrocephalus, do. From Mr. W. Wood.

Five specimens of Echinus, one of Sabellaria, and fifty-seven specimens of British shells of the following genera, Solen, Anomia, Mactra, Cardium, Lucina, Anatifa, Anodonta, Chiton, Murex, Balanus; three bottles containing Mollusca, Crustacea, and Echinodermata, in Goadby's solution; all from Pembrokeshire. From Messrs. Edward T. Wilson, and Charles W. Wilson, Pembrokeshire.

Fourteen specimens of Echinodermata, from New Zealand, of the genera Ophiura, Goniaster, Palmipes, Asterias, Scutella; one specimen of Coral from the Pacific Ocean. From Mr. Warwick, and Mr. Argent, of London.

One specimen Salmo umbla, from Lake Windermere. From Mr. Eyton, of England.

Two eggs of Coturnix excalfactoria, from N. S. Wales, two of Charadrius xanthochilus, do., two of Leucosarcia picata, do. From M. Jules P. Verreaux, of Paris.

One sternum of Circus cyaneus, two sterna of Falco tinnunculus, one of Astur nisus, two of Buteo vulgaris var. albidus, one of Milvus regalis, one of Strix, one of Parus major, one of Parus cœruleus, one of Sylvia atricapilla, one of Turdus musicus, one of Turdus merula, one of Sylvia suecica, one of Loxia oxyzivora, one of Loxia coccothraustes, one of Vidua paradisea, one of Fringilla domestica, one of Fringilla cucullata, one of Euplectes ignicapilla ♂, Africa, one of Upupa epops, one of Cuculus canorus, one of Picus tricolor ♀, three of Psittacus, one of Petit perruche à ailes Bleus, one of Cacatoës, two of Ortyx virginianus, one of Pavo cristatus, two of Phasianus pictus, one of Phasianus colchicus var. white, one of Phasianus torquatus, one of Tetrao scoticus, one of Ardea cinerea, one of Anas boschas, one of Anas ferina, two of Anas tadorna, one of Anas crecca, one of Gallinula porzana, and five unnamed. From Mons. De la Berge.

Skeleton of Turacus albocristatus; Eggs of Strix aluco, from Algiers, Aquila audax, Certhia familiaris, France, Certhia costa, Italy. Also skins of Vulpes velox, Lepus californicus, Mephitis marpurito? Sciurus Douglasii, Mus leucopus?; all from California. From Dr. Thomas B. Wilson.

August 13th.

Very beautiful specimen of Crystallized Sulphate of Barytes, from Eldridge mine, Buckingham county, Virginia. From Mr. J. Parker Norris, through J. Dickinson Sergeant, Esq.

Specimen, in spirits, of Octopus ———. Presented by Mr. Cassin.

August 20th.

Dr. Wilson presented seventeen cases containing 757 bottles of fishes and reptiles in spirits, 177 fishes in skin, nine Serpents, eight toads, ten tortoises, and one hundred Quadrupeds, in skin; being the types of the figures and descriptions in the Fauna Italica of Prince C. L. Bonaparte.

A collection of minerals from St. Lawrence county, New York. From Franklin B. Hough, M. D., of Somerville, N. Y.

DONATIONS TO LIBRARY

In July and August, 1850.

July 2d.

Notice of the Gypsum of Plaister Cove in the Strait of Canseau. By J. W. Dawson, Esq. From the author.

A Lexicon of Terms used in Natural History. By W. S. W. Ruschenberger, M. D. 8vo. From the author.

New species of Myliobates from the Eocene of South Carolina, with other genera not hitherto observed in the United States. By R. W. Gibbes, M. D. From the author.

F. C. Haugsted, M. D. Thymi in homine ac per seriem animalium descriptio anatomica. 12mo. From Dr. Morton.

Marcelli Malpighi de structura Viscerum. 12mo. From the same.

Bernardi S. Albani historia Musculorum Hominis. 4to. From the same.

Nicolai Hobokeni anatomia Secundinæ Humanæ. 12mo. From the same.

Antonii Nuck Sialographia et ductuum aquosorum anatome nova. 12mo. From the same.

Halleri opuscula anatomica de respiratione, de Monstris, &c. 12mo. From the same.

Benedicti Stilling disquisitiones de structura Protuberantiæ annularis vel Pontii Varolii. Folio. From the same.

An illustrated system of Human Anatomy. By S. G. Morton, M. D. Royal 8vo. From the same.

The following were presented by Dr. T. B. Wilson, on the usual condition:—

Narrative of a Whaling voyage round the World from 1833 to 1835. By F. D. Bennett, Esq. 2 vols. 8vo.

A familiar introduction to the History of Insects. By Edward Newman. 8vo.

Petralogy: a treatise on Rocks. By J. Pinkerton. 2 vols. 8vo.

A descriptive catalogue of the fossil organic remains of Scarborough and its vicinity. 8vo.

Geological and mining report on the Leinster Coal District. By Richard Griffith, Jr., Esq. 8vo.

Geological and Mining Survey of the Connaught Coal District in Ireland. By R. Griffith, Jr., Esq. 8vo.

A descriptive ca Geological llection of the Ro

Description methodique du Cabinet de l'Ecole Royale des Mines. Par M. age. 8vo.

Topography: or the Beauties of Nature displayed. By Wm. Wood. 3 vols. vo.

Researches in South Africa. By the Rev. John Philip, D. D. 2 vols. in one. vo.

A treatise on Primary Geology. By Henry S. Boase, M. D. 8vo.

British Song-Birds. By Neville Wood, Esq. 12mo.

Traité élémentaire de Mineralogie avec des applications aux arts. By Alex. rongniart. 2 vols. 8vo.

Account of a voyage for the discovery of the N. W. Passage by Hudson Straits the Western and Southern Ocean of America, in 1746 and 1747, in the Ship California. The dangerous voyage of Capt. Thomas James in his intended discovery f a N. W. Passage into the South Sea. 2d edition, (in one vol. 8vo.)

Sections and views illustrative of Geological Phenomena. By Henry T. de la eche. 4to.

A new system of Mineralogy. By Wm. Babington, M. D. 4to.

"Histoire naturelle des Oiseaux par le Comte Buffon," and "les Planches aluminées," systematically disposed. By Thomas Pennant. 4to.

Notes on the Statistics and Natural History of the Island of Rathlin off the orthern Coast of Ireland. By J. D. , M. D. 4to.

Description of Chiasognathus Grantii by J. F. Stephens.

Vindiciæ Geologicæ. By the Rev. W lliam Buckland.

De characteribus fossilium externis. Auctore M. J. C. Gehler.

Instructions for collecting and preserving various objects of Natural History. y E. Donovan. 8vo.

A Portrait of Geology. By a Fellow of the Geological Society. 8vo.

A day's ramble in and about the ancient town of Lewes. By Gideon A. Mantell. 12mo.

An account of the Mining Districts of Alston Moor, Weardale and Teesdale, Cumberland and Durham. By T. Sopwith. 12mo.

An account of the Museum of Economic Geology and Mining Records Office. y T. Sopwith. 12mo.

A Guide to Geology. By John Phillips. 12mo.

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A brief treatise on Geology. By Biblicus Delvinus. 2d edition. 12mo.

Naturales Curiosæ. 12mo.

The Geologist's Text Book. By David T. Ansted. 12mo.

Ornithologia, or the Birds; a Poem, in two parts. By James Jennings. 8vo.

The History, Antiquities, &c., of Eastern India. By Montgomery Martin. vols. 8vo.

A System of Geology. By John Macculloch, M. D. 2 vols. 8vo.

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An account of the Caves of Ballybunian, County of Kerby. By Wm. Ainsworth, Esq. 8vo.

Charters, By-Laws and Ordinances of the Royal College of Surgeons in London. vo.

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The last voyage of Capt. Sir John Ross, R. N., to the Arctic regions in 1829 -'33. By Robert Huish. 8vo.

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A brief narrative of an unsuccessful attempt to reach Repulse Bay in H. M. Ship Griper in 1824. By Capt. G. F. Lyon, R. N. 8vo.

A Geographical, Statistical and Historical description of the District or Zila of Dinajpur, in Bengal. By Dr. F. Buchanan (Hamilton.) 8vo.

History of the voyages and discoveries made in the North: translated from the German of J. R. Forster. 4to.

A voyage towards the North Pole undertaken in 1773. By Constantine J. Phipps. 4to.

Descriptive and illustrated catalogue of the Physiological series of Comparative Anatomy contained in the Museum of the Royal College of Surgeons in London. 5 vols. 4to.

Catalogue of Calculi and other animal concretions contained in the Museum of the Royal College of Surgeons. 4to.

Lectures on Natural Philosophy. By Richard Barton, B.D. 4to.

A Missionary Voyage to the South Pacific Ocean in 1796—'97 and '98, in the Ship Duff, Capt. James Wilson. 4to.

Voyage Minéralogique et Géologique en Hongarie pendant l'annee 1818. Par F. S. Beudant. 4 vols. 4to.

Letter to the Earl of Derby on the management of the Zoological Society of London. By Lovell Reeve.

Remarks on the Anglo-Asiatic Society of British India: addressed to William Wilberforce, Esq.

Instructions for collecting and preserving Insects, particularly Moths and Butterflies.

Catalogue of the Animals of North America. By John R. Forster.

Catalogue of British Lepidopterous Insects, (Haworth.)

Catalogue of the collection of British and Foreign Insects of the late A. H. Haworth, Esq.

Jacobi A. Melle de Lapidibus figuratis Agri Littorisque Lubecencis.

Mr. Lee's lecture on the affinities of Plants and Animals.

An address delivered at the first annual meeting of the Geological Society of Dublin, 8th February, 1832. By the Rev. Bartholomew Lloyd, D. D.

Remarks on the probable origin and antiquity of the aboriginal natives of New South Wales.

Observations on the Natural History of two species of Wasps. By the Rev. E. Bigge.

Facts and arguments in favor of a new expedition to the shores of the Arctic Ocean. By Richard King.

Speculations in Astro-Geology. By D. Nicol, Esq., M. D.

Narrative of the Proceedings of the Committee appointed by the adventurers to procure the discovery of the passage to the Western Coast of America.

Statistical Notes on Chusan. By Lieut. Ouchterlong.

The inaugural address delivered by Rod. Impey Murchison, Esq., at the first meeting of the Dudley and Midland Geological Society, January 17, 1842.

Supplement to the Flora Metropolitan. By Daniel Cooper.

The pleasures of Ornithology. A Poem. By James Jennings.

Observations and reflections on the migration, &c., of the Swallow.

Bewick's portraits of the Lion, Tiger, Zebra, and Elephant.

July 16*th*.

Catalogue of operculated Land-shells in the collection of John H. Redfield, 1850. From the author.

Zeitschrift für Malacozoologie. Von K. T. Menké, M. D., und L. Pfeiffer. Nos. 1, 2, 1850. From Dr. Wilson.

The London Athenæum for May, 1850. From the same.

A system of Mineralogy. By J. D. Dana. 3d edition. 8vo. From the author.

American Journal of Science and Arts. 2d series. No. 28. July, 1850. From the Editors.

Sixty-third Annual Report of the Regents of the University of New York. 8vo. From the Regents.

ddress on the subject of an Expedition to the South Seas. By J. N. Reynolds. o. From Dr. Morton.

eview of Dr. Drake's work on the Diseases of the interior valley of North erica. By B. Dowler, M. D. From the author.

r. Wilson presented the following on the usual condition:—

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narrative of Travels in Northern Africa in 1818, '19, '20. By Capt. G. F. , R. N. 4to.

A continuation of the Alphabetical Index to the Philosophical Transactions of the Royal Society of London. 4to. 1833.

Description of the fossil skull of an Ox, discovered in May, 1838, at Melksham, Wilts, with a geological sketch of the river Avon, in which it was found. By Henry Woods.

History of the Royal Society of London from its institution to the end of the 18th century. By Thomas Thomson, M. D. 4to.

An account of the Pelew Islands, compiled from the papers of Capt. Henry Wilson. By George Keate, Esq. 2d edition. 4to.

Verhandeling over de vereischten vau Naturkundige Afbeeldingen, door H. Schlegel.

Gleanings in Science. 3 vols. 8vo.

Manuel du Naturaliste. Par M. Duchesne. 2d edition. 4 vols. 8vo.

Dictionnaire classique d'histoire naturelle. 17 vols. 8vo.

Rapport général sur les questions relatives a la domestication et a la naturalization des animaux utiles. Par M. Isidore Geoffrey St. Hilaire.

Conspectus systematis Mastozoologiæ, 2d edition, 1850; Conspectus Systemat. Ichthyologiæ, 2d edition, 1850; Conspectus Syst. Ornithologiæ, 2d edition, 1849, and 3d edition, 1850; (C. L. Bonaparte,) (in tabular form.) From the author.

Conspectus generum Avium—(C. L. Bonaparte.) pp. 161—234. From the author.

Drafts for a Fauna Indica, (families Trogonidæ and Motacillidæ.) By E. Blyth. From the author.

Spicilegia Zoologica: or figures and descriptions of new and unfigured animals. By Jno. Edward Gray. From the author.

The Zoological Miscellany. By J. E. Gray. Nos. 1 and 2. From the author.

Descriptions and figures of some new Lepidopterous insects, chiefly from Nepal. By George R. Gray. From the author.

Illustrations of the Linnæan genera of Insects. By William Wood. 2 vols. 12mo. From the author.

Synopsis of the Hunterian Lectures on the generation and development of the vertebrated animals, delivered by Prof. Richard Owen in 1850. From the author.

Synopsis of the arrangement of the preparations in the Museum of the Royal College of Surgeons of England. From Prof. Owen.

Memoir of William Clift. 8vo. From the same.

On the various applications of anastatic printing and Papyrography. By P. H. de la Motte. 8vo. From W. Strickland, Esq.

The Bath and Bristol Magazine, or Western Miscellany. 3 vols. 8vo. From Mr. Lasbury.

Proceedings of the Ashmolean Society, Oxford. Nos. 1 to 26. From the Society.

Catalogue of the Ashmolean Museum. From the same.

The Dublin University Museum, 1846, '47 and '48. From Robert Ball, Esq.

Annual reports of the Yorkshire Philosophical Society from 1825 to 1848 inclusive. From the Society.

Laws of the same, 1839; and objects and laws of the same. From the same.

Address delivered at the annual meeting of the Liverpool Royal Institution, Feb. 1850. From the Institution.

Catalogue of the animals in the Museum of the Zoological Society of London, Sept. 1829. By —— Burnett From George R. Waterhouse, Esq.

Catalogue of the Mammalia in the Museum of the Zoological Society of London. By George R. Waterhouse. 2d edition, 1838. Supplement to same, 1839. From the same.

A catalogue of British Birds. By T. C. Eyton, Esq. 8vo. From the author.

Supplement to the Ornithological Dictionary, or Synopsis of British Birds. By George Montague, Esq. 8vo. From T. C. Eyton, Esq.

A statistical view of the principal public libraries of Europe and America. By Edward Edwards, Esq. 3d edition. From the author.

psis of the Silurian fossils of Ireland. By R. Griffith and F. McCoy.
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s of the character of the Carboniferous limestone fossils of Ireland. 4to.
same.
of the Commissioners appointed to inquire into the constitution and
nt of the British Museum. Folio. From Dr. Wilson.

July 23d.

llowing were presented by Mr. Edward Wilson of Pembrokeshire,

and correspondence relating to the Arctic expedition under Sir John
Folio.
ions of Entomology. By Thomas Patterson Yeates. 8vo.
's natural history. Written by Gerard Boate, and published by Samuel
sq. 8vo.
neral contents of the British Museum. 2d edition. 12mo.
s d'Oryctologie, ou distribution méthodique des fossiles. Par M. B.
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Slesveci et Holsatiæ et celeb. Emporio Hamburgo occurrunt triviales.
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lumenbachii de quorundam animantium Coloniis commentatio.
n de ossibus fossilibus animalis, cujusdam historiam ejus et cognitionem
rum illustrantia. Auctore J. C. Rosenmueller.
quædam de speciebus nigris Ichneumonum. Auctore Henrico Steffens.
nische Untersuchungen über die Clione borealis. H. Carl Holböll.
a Entomologica. Auctore J. C. Shæffer.
æ Fabricii origine. Auctore Æmilius Huschke, M. D.
nclature of British Birds. By James Argent.
of insects injurious to vegetation. By various authors.
r to Benjamin Hawes, Esq., M. P., being strictures on the evidence
the select committee on the British Museum. By E. Edwards.
f the Botanic Garden, Liverpool, May, 1836.
rs of the Mammoth and other bones of nondescript animals found in the
sissippi, and other rivers. By T. Ashe, Esq.
tion of an extensive collection of specimens of Natural History from
rica. By A. Steedman. 3d edition.
etter to Lord John Russel; misrepresentations of H. M. Commissioners
By the Rev. J. Forshall.
atio medico-inauguralis, sistens Coleopterorum species Agri Halensis.
A Nicolai.
s of subjects of Natural History. By F. L. Naccari.
gue of the generic and sub-generic types of the class Aves, arranged ac-
the natural system.
engravings of Portraits of distinguished Naturalists and others: and one
of the second vertebra of Elephas dentata.

August 6th.

für Naturgeschichte. Herausgeg. von Dr. F. H. Troschel. Vol. 15.
d 2. From the editor.
l Committee for the United States on the exhibition of industry of all
o be held in London in 1851. From Prof. Walter R. Johnson.
mental researches in Electricity. 23d series. By Michael Faraday.
author.
ilson presented the following on the usual condition:—

Journal of the Franklin Institute. 3d series. Vol. 20. No. 1. July, 1850.

Quarterly Journal of the Geological Society. No. 22.

Journal of the Royal Asiatic Society. Vol. XI. Part 1.

Études sur les Echinides fossiles. Par M. Gustave Cotteau. 4me. Liv.

The annals and magazine of Natural History. Vol. 5. 2d series. Nos. 29 and 30.

A History of British Mollusca and their Shells. By Prof. Forbes and S. Hanley. Parts 27 and 29.

Annales des Sciences naturelles. 3me serie. Oct. Nov., 1849.

Contributions to Ornithology. By Sir William Jardine. Parts 1 and 2. 1850.

Histoire naturelle des Mollusques. Par M. Ferussac; continue par G. P. Deshayes. 37me. liv.

Zoology of the Voyage of the Samarang. No. 6. Mollusca, part 2.

Conchologia iconica. By Lovell Reeve, Esq. Nos. 85, 86.

The genera of Diurnal Lepidoptera. By E. Doubleday: continued by J. O. Westwood. Part 32.

Cours élémentaire de Paléontologie et de Géologie statigraphiques. Par M. Alcide D'Orbigny. Vol. 1. 8vo., and Atlas.

Prodrome de Palêontologie statigraphique universelle des animaux mollusques et rayonnés, faisant suite au Cours élémentaire de Paléontologie par M. A. D'Orbigny. Vol. 1. 8vo.

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Denkschriften der k. Akad. der Wissenschaften zu Munich, 1808—1824. 9 vols. 4to.

August 20th.

Journal of the Indian Archipelago and Eastern Asia. Vol. 3, Nos. 9—12; Vol. 4, Nos. 1—4. From the editor.

Dr. Wilson presented the following on the usual condition:—

Essai sur l'histoire naturelle de l'ile de St. Domingue. Par —— Nicholson. 8vo.

Tableau des Mollusques terrestres et fluviatiles de la France. Par J. Draparnaud. 8vo.

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Anatomia comparata Nervi sympathetici. Auctore E. H. Weber, M. D. 8vo.

Philosophie entomologique. Par. J. Flor St. Amans. 8vo.

Epistolæ ineditæ Caroli Linnæi: addita parte Commercii litterarii inediti, imprimis circa rem botanicam, J. Burmani, Dillenii, J. Gesneri, Pallasii, &c.: annees 1736—'93. Edidit H. C. Van Hall. 8vo.

Versuch einer vollständigen Conchylienkenntniss nach Lin. Syst. Herausgeg: von Karl Schreibers. 2 vols. 8vo.

De la Physiologie dans ses rapports avec la Philosophie. Par J. J. Virey. 8vo.

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l'histoire naturelle, pour servir de suite aux Leçons Elémentaires
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ions sur l'organe de l'Ouie. Par M. Geoffroy. 8vo.
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e des systémes nerveux des Animaux a vertébres; appliquée a la Phy-
a la Zoologie. Par A. Desmoulins, M. D. 2 vols. 8vo.
s pour servir a l'Hist. de Cayenne et de la Guiane Françoise. Par
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tionis Fossilium quæ in omnibus Galliæ Provinciis reperiuntur ten-
uctore A. J. D. Dargenville. 8vo.
es sur l'organisation vertebrale des Crustacés, des Arachnides, et des
Par J. B. Robineau-Desvoidy, M. D. 8vo.
e descriptif et methodique des Annelides et des mollusques de l'ile de
r B. C. Payrandeau. 8vo.
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Madagascar et aux Iles Comores (1823—1830.) Par B. F. Leguével
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nkunde. Von Dr. H. O. Lenz. 8vo.
lio di Elmintografia umana; compilato da S. delle Chiaje. 2d edition.

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des Cétacés. Par Etienne Geoff. St. Hilaire. 8vo.
Naturaliste. Histoire des Papillons, 1 No. Hist. des Oiseaux, 1 No.
aire raisonné &c., des termes usités dans les Sciences Naturelles. Par
urdan. 2 vols. 8vo.
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ymard. 8vo.
methodique et descriptif des Mollusques terrestres et d'eau douce de
Par J. B. Gassies. 8vo.
r les Mollusques terrestres et fluviatiles des Vosges. Par Ernest
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rt, M. D. Elenchus Animalium. Tome 1. 8vo.
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e raisonné d'objets d'Hist. nat. et d'instrumens de physique qui com-
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uvier. 8vo.
ural History of Ireland. Birds. Vol. 2. By William Thompson. 8vo.
uthor.
trine of the Unity of the Human race examined on the principles of
By John Bachman, D. D. 8vo. From Dr. Morton.

September 3d, 1850.

Dr. Morton, President, in the Chair.

·tter was read from the Secretary of the Smithsonian Institute, Washington, August 10th, 1850, acknowledging the reception 1st., new series, of the Journal, by that Institution.

:ter was read from Dr. D. D. Owen, addressed to President Morton, July 18, 1850, stating the fact as worthy of record, that the Miegia arundinacea) had this year borne flowers and pro- eed in Indiana, a rare occurrence with this plant. Mr. Nuttall, 'Genera of N. A. Plants," in reference to "M. gigantea?," per- variety of "macrosperma," says, "this species is supposed to but once in 20 or 25 years."

Clay observed that this occurrence was not confined to Indiana ar, but was very extensive in the Western States. Similar facts ion to the flowering of other plants, as the Bamboo, were also 'd to.

Robert Kilvington exhibited a collection of Australian plants, -three in number, which he had raised from seed presented to ademy by Dr. Charles Nicholson, of Sydney. They were all in ealthy condition, and consisted of Acacia rutifolia, A. meloxylon, ——, Aotus villosa, Bossiœa scolopendrium, B. prostrata, B. folia, Calotis ———, Calothamnus villosa, Callistachys ovata, na tenuifolia, Dillwynia ericifolia, D. phylicoides, Hibiscus lsonii, Kennedia rubicunda, Indigofera gracilis, Leptospermum s, Pomaderris discolor, Pultenæa hirsuta, Sphærolobium vimi- Lamia australis.

September 10th.

Dr. Morton, President, in the Chair.

Morton offered some remarks on the value of the word *species* ogy.

is point there is great diversity of opinion among naturalists. Some law of specific distinctions—at least, their arguments lead to this infer- 'hus, Lamarck and Geoffroy St. Hilaire insist upon the uninterrupted n of the animal kingdom—the gradual mergence of one species into from the earliest ages of time: and they suppose that the fossil animals 'mains are preserved in the various geological strata, however different se of our own time, may nevertheless have been the ancestors of those eing. Sir Charles Lyell has opposed this theory with great ingenuity ral success; yet whoever will examine the facts and arguments l by its authors, may be disposed to admit that it is not altogether devoid tion in some exceptions to the general law of Nature.

Somewhat allied to this is the opinion of Swainson and others, that permanent varieties constitute species, or in other words, that variations of climate, food and treatment produce specific distinctions.

Species is defined by Buffon, "a succession of similar individuals which re-produce each other." Cuvier's definition is nearly the same; but he adds that "the apparent difference of the races of our domestic species are stronger than those of any species of the same genus. The fact of the *succession*, therefore, and of the constant succession, constitutes alone the validity of the species."

An objection to these definitions arises from the fact that they apply as readily to mere varieties as to acknowledged species. Certain albino animals re-produce, *inter se*, to an indefinite extent; such also is the case with some fanciful varieties of the dog, pigeon, &c., which are capable of multiplying by the law of succession, and yet have no claim to specific distinction, in the restricted acceptation of that term.

I have brought together these definitions, in the first place to show that naturalists are by no means agreed upon what constitutes a species, and secondly, to offer some views of my own.

As the result of much observation and reflection, I now submit a definition which I hope will obviate at least some of the objections to which I have alluded. SPECIES—*a primordial organic form.* It will be justly remarked that a difficulty presents itself, at the outset, in determining what forms are primordial; but independently of various other sources of evidence, we may be assisted in the inquiry by those monumental records, both of Egypt and Assyria, of which we are now happily possessed of the proximate dates. My view may be briefly explained by saying, that if certain existing organic types can be traced back into the "night of time," as dissimilar as we see them now, is it not more reasonable to regard them as aboriginal, than to suppose them the mere accidental derivations of an isolated patriarchal stem of which we know nothing? Hence, for example, I believe the dog family not to have originated from one primitive form, but from many. Again, what I call a species may be regarded by some naturalists as a *primitive variety*; but, as the difference is only in name, and in no way influences the zoological question, it is unnecessary to notice it further.

These views appear to correspond with those of Mr. Linnæus Martin, who expresses himself in the following terms:

"We are among those who believe that, as there are degrees in the relationship of species to species, some may, although distinct, approximate so nearly as not only to produce *inter se*, mules incapable of interbreeding, but *a progeny of fertile hybrids, capable of admixture, even to the most unlimited extent*?

Species may therefore be classed according to their disparity or affinity, in the following provisional manner:

Remote species of the same genus, are those among which hybrids are never produced.

Allied species produce, *inter se*, an infertile offspring.

Proximate species produce with each other a fertile offspring.

September 24th.

Dr. Morton, President, in the Chair.

After some preliminary business, the Society proceeded to an elec- n for Vice President, in place of Dr. Griffith deceased, when Dr. obert Bridges was elected to that office.

The Society also elected Dr. T. B. Wilson a member of the Con- ological Committee, to supply the vacancy in that committee occa- oned by the decease of Dr. Griffith.

ELECTION.

Aubrey H. Smith, Esq., of Philadelphia, was elected a *Member* of e Academy.

October 1st.

Dr. Morton, President, in the Chair.

Dr. Bridges presented a paper entitled "Descriptions of four new ecies of Crinoidea, from the sub-carboniferous limestone of Iowa and linois, collected during the U. S. Geological Survey of Iowa, &c., the years 1848–9. By David Dale Owen, M. D., and B. F. Shu- ard, M. D.;" being an addition to the memoir by the same authors ad at a late meeting of the Academy. The present paper was ferred to the committee having charge of the previous portion, viz., essrs. Conrad, Wilson, and Morton.

A letter was read from the Secretary of the Lyceum of Natural istory, of New York, dated September 27th, 1850, stating, that a rcel containing publications of several scientific societies of Lyons, rance, had been received by M. Grex, of New York, for the Academy.

Dr. Bridges read a letter from Mr. George Ord, accompanying the nation of copper plates XX and XXI, of Vol. 4, 1st series, 8vo. of e Journal of this Institution. On motion, the thanks of the Society ere unanimously voted to Mr. Ord for his liberal and valuable gift.

Dr. Leidy read a description of a new species of Ligula (L. sala- andræ) which on motion was referred to a committee consisting of rs. Hallowell, Kellar, and Zantzinger.

Dr. Morton, read the following extract from a letter from A. C. arris, Esq., addressed to Mr. George R. Gliddon, and dated Alexan- ia, in Egypt, 6th Aug., 1850, in relation to the present existence of e *Ibis religiosa*, in that country.

"Upon a large sand-bank opposite to the Casr-el Sayàd, I positively saw an *is* on the 20th of last December. I have seen stuffed specimens brought from ennaar, and cannot be mistaken in the bird. Its shape is that of the Monuments the body is grey, the head and part of the neck black, as also the feathers of

the tail. It was with a flock of other birds, and as it slowly left the bank of the river, I remarked that there was a peculiarity in its gait. It pondered over the ground as it walked with eccentric pace, as if it were measuring angles; and it struck me that it is this trait to which Plutarch alludes, and which gave to the *Ibis* the character of Hierogrammaticus or Geometer. If any one else has had the good fortune to see this bird in its natural state, he will perhaps have noticed the singularity which I have described."

In confirmation of Mr. Harris's remark about the scarcity of the real *Ibis religiosa* at the present day in Egypt, Mr. Gliddon observed, that although he had shot over the length and breadth of the land at all times of the year, he had never seen a *living Ibis* during twenty three years residence there. The only modern specimen of the *Ibis* he had ever seen was a dead one, offered for sale by a Moghrebbee hunter at Cairo, about 1835. Mr. Harris has been familiar with Egypt for twenty-seven years, and besides being a profound hierologist, is a keen and observing sportsman. His experience is therefore authoritative; and a sufficient refutation of the accounts of tourists, who talk of seeing *Ibises* on the Nile as if they were common birds there—confounding this with that commonest of all birds, the *buffalo crane*, called by the Arabs *Aboo-gerdàn.*

The *black* Ibis, though very rare, has been shot by Mr. Gliddon near lake Bourlos in the Delta. Both species are still abundant above Dongola.

Dr. Morton called attention to two plates, which he exhibited, of Layard's folio illustrations of the ruins of Nineveh, whereon are figured the Camel (C. bactrianus,) and Dromedary (C. dromedarius,) with as much distinctive accuracy as if they had been drawn but yesterday, and yet they date, according to Mr. Layard, 2600 years before our era, or, according to Rawlinson, more than a thousand years later. In either case, they are additional evidence of the distinctness of species, a point which has been disputed, simply because they are said to produce with each other a fertile hybrid offspring.

The following resolution was adopted: *Resolved,* That a copy of the Proceedings, as far as published, be presented to the Agricultural Society of Lyons.

October 8th.

Dr. Morton, President, in the Chair.

Two letters were read from the Secretary of the Geological of London, dated severally, May 8th and May 23d, 1850, acknowledging the reception by that Society, of Part 4, Vol. 1, new series, of the Journal, and of recent Nos. of the Proceedings.

Also a letter from Col. J. D. Graham, dated Washington, September 20th, 1850, desiring the renewal of his certificate of membership in the Academy, which had been lost. On motion, the request was granted.

Dr. Liedy read a paper describing several species of Entozoa, which
s referred to a committee on a previous paper by the same author,
., Drs. Hallowell, Keller and Zantzinger.

Dr. Liedy also read a paper entitled "Notes on the development of
Gordius aquaticus," which was likewise referred to the preceding
mmittee.

Dr. Morton made the following observations on the Antiquity of
me Races of Dogs:

In tracing back the age of certain canine breeds and species, I chiefly avail my-
f of the chronology of Prof. Lepsius, which has happily revealed the proximate
es of the Egyptian monuments, and thus enabled us to refer both man and
imals to their respective epochs of time.

The following facts are offered as the initiatory portion of an extended series
ich it is my intention from time to time to bring forward.

1. The Fox-Dog—(*C. lupaster.*)—This animal is of the middle size, with
ect ears and somewhat bushy tail. It appears to be the oldest dog of which the
yptians have left an effigy; for it represents a symbol in their alphabet,[*] with
ich it must be coeval, and therefore demonstrably not much less than six thou-
nd years old. This same dog is again represented on the paintings in the tomb of
oti, at Beni Hassan, which date with the XIIth dynasty, or the 23rd century
C.; and he can thence be traced downwards, through the successive monumen-
l periods, until these cease to record the affairs of Egypt. It is also found em-
lmed in great numbers in various parts of that country, and lastly, it appears to
ve been "the parent stock of the modern red wild-dog so common at Cairo and
e other towns of the lower country."[†] Clot-Bey observes that it now leads a
madic life, and generally without a master, and like the jackal and the fox,
quents the confines of the desert. It does not usually associate with other dogs,
t is capable of re-producing with them; but this cross-breed is of no use or
lue. Ehrenberg, who calls this animal *Canis lupaster*, supposes it to have been
imitively a wolf; but as in its present wild state it nowhere becomes a true
olf, we may more safely refer its origin to some feral stock, once and perhaps
t indigenous to the region of the Nile.

2. The Greyhound—(*C. graius.*)—There are three varieties of this animal
presented on the monuments of Egypt; but the oldest has long, erect ears, with
smooth, short (and probably cropped) tail. I first detect it in the paintings in a
mb of the IIIrd dynasty, (where it occurs in several different places,) and is
nsequently upwards of five thousand years old: thence, I have traced it down
rough the VIth and XIIth dynasties, where my researches stop for the present
r want of the requisite leisure. But this same dog may possibly be represented by
e Roumelian greyhound of the present day, which, however, I know only from
scription.

3. Another greyhound first appears in the tomb of Roti, at Beni Hassan, in the
3rd century before Christ.[‡] It has all the characters of the pendant-eared grey-
und of the present day, as figured by Buffon, but is represented with cropped

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[*] Bunsen, Egypt's place in Universal History, p. 417.

[†] Wilkinson, Manners and Customs of the Ancient Egyptians, III, p. 35.

[‡] Rosellini, Mon. Tav. XVII, fig. 3.

ears. Now the present Nubian greyhound, as seen in the beautiful plates of M. Prisse's *Oriental Album*, appears to be the very same animal; and it is a curious fact, mentioned to me by Mr. Gliddon, that the Modern Nubians habitually crop the ears of this dog.

4. The third form of antique greyhound has a bushy tail. It is figured by Hamilton Smith from the monuments, but I have not yet met with it, and consequently cannot at present determine its age. A similar form, called the *Akabe greyhound*, is yet common in Syria and Arabia.[*]

But what is not less remarkable than the permanence and vast antiquity of the preceding forms, is the fact that what we call the *English greyhound* is figured with every distinctive characteristic, even to the semi-pendant ears, on a supposed antique statue now preserved in the Vatican at Rome.[†]

The first three of this series are probably primordial forms; but the English greyhound may be a derivative from some partial intermixture, in the same manner that the Irish greyhound is said to be derived from an infusion of the great Danish dog with the common breed.[‡]

5. The Bloodhound—(*C. Sagax.*)—Several varieties of the stag and bloodhound are very closely allied. In the tomb of Roti, at Beni Hassan, is a painting representing a spirited deer-hunt, and the dogs, two of which are represented, are admirable illustrations of this variety. They are common on the latter monuments: for example, in the *Grand Procession* of Thotmes III, (B. C. 1700,) where several of them are associated with people and productions of the interior of Africa.[§] Again, yet later, it is seen in a tomb at Gourneh, near Thebes; and if I mistake not, through various later epochs. Now if we compare the oldest of the delineations—viz.: those of Beni Hassan, with the bloodhounds of Africa lately (and perhaps yet) living in the Tower Menagerie in London, we cannot deny their identity, so complete is the resemblance of form and instinct.[‖]

6. The Turnspit—(*C. vertagus.*)—Wilkinson and Blainville have both acknowledged that a variety of this dog is figured in the tomb of Roti, at Beni Hassan.[¶] It is yet common both in Europe and Asia.

7. The Watch Dog—(C.————.)—Several of these animals, or at least their analogues, are figured in the tomb just mentioned,[**] They bear a striking resemblance to one figured on a Roman mosaic pavement at Pompeii, and are frequently met with in the East. It is possibly this dog which represents a second canine symbol in the hieroglyphic alphabet; but the figure is too small to enable me to speak with confidence.[††]

8. House Dog.—(*C. hybridus.*)—I take this identification and provisional specific name, as I have also most of the others of this series, from Blainville.[‡‡‡]

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[*] La Borde, Trav. through Arabia Petræa, p. 118. Russell's Alleppo, II, p. 179.

[†] Blainville, Osteographie, Canis, pl. XIV.

[‡] Bell, British Quadrupeds, p. 241.

[§] Hoskins's Ethiopia, Grand Procession, Part I.

[‖] Bennett. Tower Menagerie, p. 83.

[¶] Rosellini, Tav. XVII, fig. 4.

[**] Idem. Tab. XVII, fig. 2,4,9. See Martin on the Dog, p. 49.

[††] Bunsen, ut supra, p. 417.

[‡‡‡] Osteographie, Canis, pl. XIV. Blainville calls it *chien domestique*. It is also the *Roguet* of the French.

find this animal also on the monuments of the XIIth dynasty, where it ents some modifications much as we see them in the present day.[*]

The Wolf-Dog. (*C. pomeranus.*)—This animal is also well represented at i Hassan, with all the characteristics that can be embraced in a drawing that ttle more than an outline.[†] It is also figured on an ancient Etruscan ? medal e second or third century B. C.[‡]

will be observed that two of the preceding varieties of dog are coeval with earliest hieroglyphic symbols; and as these last cannot be later than the age lenes, the first king of Egypt, we may safely date them, on the chronology of sius, as far back as that epoch, viz. 3893 B. C., or 5743 years from our own ; but how much further, we have not, at present, even the means of forming asonable conjecture.

e other form—the long-eared greyhound—dates, as we have seen, with the dynasty—about 3500 years B. C. Six additional forms date with the 12th asty, which ended B. C. 2124; and as the tombs of Roti and Nevopth belong e reign of Osortasen IInd, they are placed by Lepsius in the twenty-third ury before Christ.

give these pictorial data as a part only of the series; for of the eight hundred s announced by Dr. Lepsius as in progress of publication, but thirty-five yet reached this country; and for these I am indebted to the kindness of that nguished scholar who has at length raised the "Veil of Isis," and given dates e hitherto chaotic Monuments of the Nile.

he Rev. Dr. Bachman quotes Hamilton Smith to show that three thousand s ago, two varieties only of the dog were known. This was excusable in a ralist who, at the time of publishing his *Canidæ*, (1839,) could not have seen complete iconography of either Champollion or Rosellini; and again, at that d the *earliest* sculptures and paintings were unknown, nor had the e been chronologically arranged—a consummation that gives them nearly whole value in a zoological sense. The Hebrew chronology ascribes the ge to the year 2340 B. C. Now three of these dogs date nearly a thousand s earlier in time, and all the rest belong to the twenty-third century before ra. Col. Smith's views were in accordance with the knowledge of the coexist time; but any one who had taken the pains even to look over Rosellini's s, might have obtained additional information on this question.

. The Bull-Dog—(C. *molossus.*)—This animal is admirably figured on a of antique Greek sculpture in the Vatican. The form and expression of ead are perfectly characteristic, even to the peculiar arrangement of the l.[§] It is remarked by Holland in his Travels in Greece, that the Bull-dog t the dominant variety of Albania, where it has been trained to guard the s, and thus to take the place of the Shepherd's dog.

. Mastiff—(C. *laniarius.*)—I have not yet detected this dog on the Nilotic uments; but it is mentioned by Aristotle and seen on two ancient Greek als, one of which, that of Segestus of Sicily, dates with the 4th or 5th century .—The other, which is of Aquila Severa, Dictator of Crete, is about two ries later.[‖]

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[*] Rosellini, Mon. Tav. XVI, fig. 5.

[†] Rosellini, Mon. Tav. XVII, fig. 5.

[‡] Blainville, Osteographie, Canis, pl. XIV.

[§] Blainville, Osteographie, Canis, p. 74.

[‖] Idem.

12. **Shepherd's Dog**—(C. *domesticus.*)—The earliest effigy of this animal, which is also mentioned by Aristotle, is preserved on ancient Etruscan medals of unknown date. The probability is that it was familiar to man in the earliest ages, and may yet be found on the Egyptian monuments. It is doubtless one of the primordial forms of the canine race.

In allusion to the illustrations derived from the monuments, Blainville truly remarks that "we here see a large number of our existing breeds of dogs;" and inasmuch as they have preserved their identity through such vast periods of time not only in the most diversified climates, but also under the influence of the greatest variety of circumstances, is it not reasonable to believe that a part at least of these forms, constitute essential primeval types? We trace them back into the "night of time," and find them as distinct as they yet are in the living *Fauna;* and it remains for those persons who insist that they have all been derived from an aboriginal pair, to give us something more in proof than analogical reasoning, or inferences drawn from arbitrary views of the laws of Nature.

But an evidence of the great antiquity of the animal we call the domestic dog, and one to which I have already alluded, is the fact that it has been recently found in a fossil state in two localities very remote from each other. First in Germany by Schmerling, and secondly, in New Zealand by Mr. W. Mantell, (son of the celebrated geologist,) who there found it associated with the bones of the gigantic *Dinornis.* Now from these facts I conceive we must conclude, either that some forms of this animal are primordial and independent of human domestication; or, that man himself, having existed contemporaneously with these now fossilized animals, claims a vast antiquity as a denizen of the earth.

It is shrewdly observed by Azara, that if the differences among dogs were the result of climate, all the dogs of each separate country should be alike. To this I may add, that if they are all descended from a single primal type, they ought, on resuming the wild state, to return to this type. Yet in America, where the experiment has been observed on the largest and most unequivocal scale, we see no such result. In Jamaica, they have in some instances reverted to the shepherd's dog—in others, to the great Danish dog; and this last variety is the dominant one in the wild packs of Paraguay. In Cuba they have sometimes resembled greyhounds, and in the pampas of Brazil they are more like terriers. *In other words, they constantly tend to recur to that primitive element which is most dominant in their physical constitution;* and it is remarkable that in the old world this restored type is never the wolf, although it is sometimes, as we have seen, a lupine dog, owing to the physiological cause just mentioned.

The blending of the opposite extremes of these types, and these hybrids again with each other, gives rise, as every one knows, to those degenerate animals known as pugs, shocks, spaniels, &c., which Cuvier justly calls "the most degenerate productions," and which are found "to possess a short and fleeting existence—the common lot of all types of modern origin."

Among the North American Indians, the original forms are very few and closely allied; whence it happens that these grotesque varieties never appear. Neither have they any approximation to that marked family we call *hounds;* and this fact is the more remarkable since the Indian dogs are employed in the same manner of hunting as the hounds of Europe, Asia and Africa. Yet, this similarity of employment has caused no analogy of exterior form. No varieties, like those so familiar in Europe, spring up among them. They are as homogeneous as the

›s from whom they have descended; and Dr. Richardson quotes Theodat
that the *common Indian dog* has not materially changed during two hun-
twenty years. Again, the same remark applies to the indigenous *Alco*
ichi dogs of Mexico and South America, which, before their admixture
ıropean breeds, conformed to the types or species from whence they
without branching into the thirty *varieties* of Buffon, or the sixty of
The dog of New-Caledonia, in the western regions of Arctic America,
e regarded as an exception, for he is also a lupine animal, although too lit-
›wn of him to enable us to suggest his relative position to the other
a races. The Indian dog of Florida partakes largely also of the wolf,
pposed by Hamilton Smith to be intermediate between the common grey
occidentalis) and the Newfoundland dog, *C. palmatus*. And finally, the
imal, which belongs also to the same great dog family, is by some natural
rded as a cross between the Esquimaux dog and some exotic breed. To
er question I have not yet given attention.

is true of forms is equally true of instincts.

undoubtedly true (observes Sir. C. Lyell) that many new habits and
have not only been acquired, in recent times, by certain races of dogs,
been transmitted to their offspring. But in these cases it will be obser-
the new peculiarities have an intimate relation to the habits of the ani-
wild state, and therefore do not attest any tendency to departure, to an
e extent, from the original type of the species."
uthor then instances a peculiar mode in which a certain breed of dogs
e deer on the platform of Santa Fé, in Mexico, and adds, that other Euro-
ting dogs, though of superior strength and general sagacity, are destitute
nstinct, and are often, in consequence, killed by the deer.
ain this phenomenon, not on the supposition of a new, but of a latent in-
which circumstances have merely developed; and as by crossing dissimilar
or varieties of dogs, we obtain the blended and opposite lineaments of both,
e same process, we may combine a double or modified instinct.
w of the preceding facts, I continue to regard the great canine race of the
new world as constituted of many species of primordial dogs; of three, at
nd perhaps more) species of wolves; of some accessions from the fox-
d a less certain infusion of the jackal. The wolves that appear to have
lly contributed to this protean family, are the *Canis lupus* of the old
nd the C. *occidentalis*, or common grey-wolf, and the C. *latrans* or
wolf of America. The evidence of the fox-tribe are most conspicuously
n the Aguara dogs of more southern latitudes.

October 15*th*.

Dr. Morton, President, in the Chair.

letters were read from the Agricultural Society of Lyons,
everally, August 10, 1849, and April 12, 1850, informing the
ny of the transmission by that Society, of Vols. 10 and 11 of
als.

a letter from the National Academy of Sciences of Lyons,
uly 2, 1850, accompanying a copy of its Memoirs for 1848–50.

Also a letter from the Linnean Society of Lyons, dated July 1, 1850, presenting the Annals of that Society for 1847–49.

A letter was also read from J. A. Grex, Esq., addressed to the Librarian, dated New York, October 3, 1850, transmitting the above works, and acknowledging the reception of a copy of the Journal, Vol. 1, new series, and of a copy of the Proceedings, for the Agricultural Society of Lyons.

Dr. Leidy presented two papers, one describing two new species of Infusorial Entozoa, and the other entitled "descriptions of some nematoid Entozoa infesting insects," both of which were referred to the committee having charge of previous communications by Dr. Leidy read at late meetings of the Society, viz., Drs. Hallowell, Keller, and Zantzinger.

Dr. Leidy also made the following observations on two new genera of mammalian fossils, which he designates under the names of Eucrotaphus Jacksoni, and Archaeotherium Mortoni:

The two fragments of mammalian crania, which I exhibit this evening to the Academy, are part of those specimens a short time since presented to our Cabinet by Mr. Joseph Culbertson, of Cumberland Co., Penna., whose son obtained them from that region of country, in the vicinity of Fort Laramie on the Platte river, known as the "mauvais terres," or "bad lands," a locality, which, according to recent researches made by Dr. John Evans, is rich in such remains. Both fragments belong to new genera of mammalia. The smaller of these I have named Eucrotaphus, on account of the comparatively very large size of the temporal bones. It consists of the central portion only of the cranium, and is a little longer than the corresponding portion of the skull of the beaver (Castor fiber.) In general outline it resembles the posterior part of the cranium of the American mink, (Mustela lutreola) or more particularly that of the opossum, (Didelphis virginiana;) being broad posteriorly, cylindroid anterior to the ossa tempora, but is not as bulging at the sides as in the latter mentioned animals.

The bones still existing in the specimen consist of the right temporal, except its zygoma and posterior superior portion; a portion of the left squamous bone; the middle portion of the ossa parietalia, ossified into one, except the sagittal crest; the right para-mastoid, or paroccipital process, except the tip, with a small fragment of the occiput above it; the posterior sphenoid, somewhat mutilated; a fragment of the presphenoid; and a fragment of the basioccipital.

The most remarkable characteristics of this head are:—first, the comparatively enormous size of the squamous portion of the ossa tempora; second, the great advancement of the ossa parietalia;* third, the deep groove in the ossa parietalia just in advance of the squamous suture; fourth, the strength of origin of the zygoma; and fifth, the form of the glenoid cavity.

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* I for some time hesitated before I applied this name to the symmetrical bone occupying the upper part of the cranium. I thought at first it was the frontal extending very far back, but upon considering the advanced position of the squamous portion of the temporal bone, and observing in the Erinaceus ecaudatus, a considerable prolongation forward of the ossa parietalia, I concluded that it belonged to the latter category.

en frequently remarked in works on anatomy, that in man, the squa-
on of the temporal bone enters into the construction of the cavity of
n comparatively more than in any other animal, but in the fossil before
it to be comparatively much greater than in man, for although the
but little larger than that of the beaver, yet the squamous portion of
al bone in it measures over two inches in breadth antero-posteriorly,
d three-fourths of an inch at its highest point. The summits of this
the two bones are not more than seven-tenths of an inch apart at the
head. The exterior surface of the squamous bone is very slightly con-
y flat, and inclines at an angle of about 50°. It is bounded postero-
by a strong, projecting ridge, the superior root of the zygoma, which
s almost vertically above and a very little behind the meatus audito-
us. The origin or commencement of this ridge indicates considerable
nt of the squamous bone. Just within the ridge posteriorly on a line
eatus auditorius externus, is a large round venous foramen, the direc-
ich is downwards and inwards.

of the zygoma is remarkably strong, its direction being at first almost
tward. The glenoid cavity is of unusually large extent, even greater
of most known Ruminantia, and is placed immediately beneath the
port of the zygoma, more like in man and the quadrumana than in other
In its direction it is transverse, with an inclination from within outward
le upward. Posteriorly it is bounded by a comparatively enormous
separating it from the meatus auditorius externus, which at its longest
ally measures 7-10ths of an inch from the floor of the meatus,
in thickness at the base, antero-posteriorly, on a level with the
the glenoid cavity, and over 6-10ths of an inch transversly. Anteriorly
l cavity is bounded by a broad transverse ridge, about two lines higher,
which is a large inferior concave surface extending inward and for-
he root of the pterygoid processes and the spheno-orbitar foramen,
the exterior of the latter by a projecting ridge of the alisphenoid.
o the posterior glenoid tuberosity, and the superior root of the zygoma,
y vertical triangular excavation, bounded posteriorly by the mastoid
astoid processes, and containing the meatus auditorius externus bounded
strong, semicircular auditory process. In a groove between the latter
st-glenoid tuberosity, is placed a second small tuberosity or ridge about
ngth. Continuous with the groove just mentioned around the base
erior glenoid tuberosity internally, is a deep fissure, having at its bottom
dal foramina. Bounding the fissure on the inside, is a large, compressed
uditory bulla, measuring about 7-10ths of an inch vertically, and
teriorly, and 6-10ths of an inch transversely. Posteriorly it abuts
para-mastoid process, and antero-externally it joins the alisphenoid by
at ridge just within the suture, separating the alisphenoid from the
bone. Postero-externally, bounded posteriorly by the para-mastoid,
ally by the auditory process, is a deep vertical pit at the bottom of
round basis of support for the styloid process of the temporal bone.
ernally to the auditory bulla, between it and the basisphenoid and
d, is a large oval pit, the foramen lacerum anterius, and the caroticum
Anterior to this, placed in the alisphenoid between the auditory

bulla and the root of the pterygoid processes is the foramen ovale. The latter mentioned basis of support to the pterygoid processes is a triangular prominence, and placed immediately on a line with it in front is a large round spheno-orbitar foramen. The basisphenoid is cylindrical in form, a little over an inch in length, and joins the presphenoid on a line with the spheno-orbitar foramina. The mutilated commencement of the presphenoid in the specimen is alone sufficient to indicate that it undergoes little diminution in diameter from that of the basisphenoid. The basioccipital is also cylindroid in form, a little broader than the basisphenoid and articulates with the latter on a line with it. The para-mastoid process or paroccipital joins the mastoid process, and affords an abutment posteriorly to the auditory bulla; it is rough and strong, and in the specimen descends two-thirds the length of the latter process, the tip being broken off. The ossa parietalia, ossified into one symmetrical bone, in advance of the ossa tempora are nearly cylindrical and antero-inferiorly join the alisphenoid. Between the ossa squamosa, the two at their narrowest portion measure only 7-10ths of an inch across. They are surmounted by a strong sagittal crest with a broad base, which in the specimen has been broken away. Laterally in advance of the squamous suture, is a remarkable and vertical, moderately deep and broad groove, the office of which I cannot conjecture. The squamous suture partakes of the serrated form.

Measurements.—From one lateral groove of the parietalia to the other measures 1 and 7-10ths of an inch; the distance between the glenoid cavities, 1 and 3-10ths inch; from the posterior face of the posterior glenoid tubercle to the anterior boundary of the anterior glenoid tubercle is 1 and 2-10ths inch; from one foramen ovale to the other 4-10ths of an inch.

Remarks.—From the very great strength of the base of support of the zygomatic process; the comparative size and concealed position of the glenoid cavity; the great size of the posterior glenoid tubercle; and the great extent of the temporal fossa, (for although it is shortened by the very rapid ascent of the superior root of the zygoma and advancement of the occiput, yet it is increased in extent by the very great vertical development of the squamous bone, and in depth by the comparatively depressed or flattened surface of the latter,) the Eucrotaphus has been endowed with very great power in the muscles of mastication and great freedom of movement in the articulation of the lower jaw.

The position of this genus I have not been able satisfactorily to determine from the specimen, and we must wait, therefore, until other parts of the cranium of the animal are found before we can be able to detect its true place among the orders.

The species I have named Eucrotaphus Jacksoni, in honor of my esteemed friend Dr. Samuel Jackson, the eminent teacher of the Institutes of Medicine in the University of Pennsylvania.

The second fossil fragment, which I have named Archaeotherium, appears to have belonged to an animal not remotely allied to the Anoplotherium. The specimen is part only of the face, consisting of the middle portion of the left os maxillare superius, with the corresponding portion of the palate process, containing two premolar teeth and the alveolus for a third, a fragment of the upper part of the right os maxillare superius, the central portion of the two ossa nasi, and the anterior extremity of the left os mala. In general form this part of the face is prolonged like that of the Anoplotherium, and in size was at least one-half greater than the A. commune.

The anterior of the two teeth in the fragment appears to be the first premolar, corresponding to that tooth in the Anoplotherium by its double fang. The body of the tooth is not so broad as in the latter, and is more conical. It is convex externally from side to side, and the base of the enamel is elevated, rounded, and deeply emarginate at the position corresponding to the separation of the fangs, but it projects at no place beyond the general surface of the crown except posteriorly where it forms a slight ledge or heel. Interiorly the general surface is convex, but it rather forms a central rounded longitudinal prominence from which the surface passes off slightly concave posteriorly and to an elevated line at the antero-interior border of the tooth. The enamel has been worn off the end and along its posterior border. The second premolar is implanted in the alveolus by three fangs, two externally and the other internally. The body of the tooth is cuboidal, but is greater in its transverse measurement than antero-posteriorly. The external face is convex from side to side, and is not so long as that of the first premolar. The enamel base is strongly emarginate between the fangs, is prominent, rounded, and projects into a narrow edge anteriorly and posteriorly about 2½ lines below its edge. The anterior surface is directed obliquely inward and forward. The crown has been worn down leaving exposed a large, transversely oval islet of dentine, which is continuous with a similarly exposed surface antero-externally. The posterior surface is nearly transverse, and is worn into a concave depression from the pressure of the succeeding tooth in the row. The fangs are large and strong; the antero-external is implanted in the jaw obliquely upward and forward, and the postero-external vertically; the interior is larger than the other and is placed on a line posterior to the antero-external fang.

The interspace between the first and second premolars is triangular, and from the attrition upon the posterior surface of the former and anterior of the latter, has been occupied, in a state of rest, by the body of the first premolar of the inferior maxilla.

Posterior to the second premolar, the sockets alone for the three fangs of the third premolar exist in the specimen.

The surface of the superior maxillary bone is convex from above downwards. The infra-orbitar foramen, from a smooth notch existing in the specimen, appears to have been placed at the junction of the superior maxillary with the malar bone. The palatine process is 3 lines in depth from the edge of the alveolus. The ossa nasi are transversely convex.

Measurements.—The heighth of the superior maxillary bone from the lateral nasal suture to the edge of the alveolus on a line with the second premolar, is 3½ inches; breadth of os nasi on same line ¾ of an inch; breadth of first premolar at base externally 1¼ inches; transversely ½ an inch; second premolar antero-posteriorly ⅝ of an inch; transversely ¾ of an inch; heighth of face from middle nasal suture to the roof of the mouth on a line with the first premolar 2¼ inches, on a line with the third premolar 3 inches.

The species of Archaeotherium I have named Mortoni in honor of my friend Dr. Samuel George Morton, the excellent President of this Academy.

October 22d.

Dr. Morton, President, in the Chair.

Mr. Richard C. Taylor presented the following meteorological observations made at the Isthmus of Panama, at Port Royal, Jamaica, and at sea, in October, 1849.

Table construted from a few Meteorological Notes, chiefly in regard to the daily temperature at noon, on the east coast of the Isthmus of Panama, Port Royal, in Jamaica, and on the return voyage to New York; for the month of October, 1849.

By Richard C. Taylor.

Date.	Position.	Observations at noon.		
		Latitude.	Thermometer	Barometer.
Oct. 6	On shore, at Escribanos, Prov. Veragua.	9° 04′	82°	
7	do. do.	9 04	83	
8	Off shore,	9 04	86	
9	On shore at Chagres,	9 24	88	
10	do. do.	9 24	90	
11	do. do.	9 24	90	29° 70′
12	At anchor, one mile from Chagres,	9 24	88	29 70
15	do.	9 24	85	29 70
17	do.	9 24	92	29 50
18	Caribbean Sea,		88	29 50
19	do.		88	29 60
20	Port Royal, Jamaica,	18 00	85	29 20
21	do.	18 00	85	29 20
22	At sea, close under St. Domingo,	19 52	83	29 50
23	do. off Maraguana Island,	22 20	83	29 60
24	do.	26 26	78	29 50
25	do.	29 06	76	29 50
26	do.	34 25	72	30 10
27	do. off Cape Henlopen,	38 45	66	29 80
31	At New York,	40 42	43	

There appear to be some peculiarities, not readily accounted for, in the periods of Rainy and Dry seasons upon the Isthmus of Panama, at points which are not very far distant from each other, on the same coast.

Thus, the rainy season at Escribanos, in the Province of Veragua, we understand, is the reverse of that at Chagres, which place is situated at only sixty or seventy miles distance.

At Chagres, the *dry* season begins in December and ends in May, and the principal *rainy* months are those between May and November.

On the other hand, at Escribanos, the most *rainy* months are those which extend from November to the end of March. The inhabitants at this time are confined to their houses and have few opportunities of getting out of their doors. What is called the *dry* season in this vicinity, is from April to the end of October. Still, storms and showers occur almost daily in those months; and, in reference to the entire year at Escribanos, we remember the somewhat vague remark of the French Negro proprietor there—" it rains *every* time."

This constant progression of vast masses of vapor, of copious showers, and successive thunderstorms, along the mountainous but broken range of the Isthmus, appears to be chiefly from the equator, northward.

More than forty years ago, the celebrated Humboldt offered an explanation of the causes which occasioned the insupportable heat and dryness of the Old World, within the limits of the torrid zone, and the comparative coolness and continued humidity of the same parallel on the New Continent. These views are repeated in the same author's recent work on the "Aspects of Nature." I may be permitted to give the substance of them here.

In the sandy deserts of Africa, the vertically ascending column of warm air prevents the vesicles of vapor from being dissolved. The more complete the absence of vegetation and the more the sand is heated, the greater is the height of the clouds, and the less can any fall of rain take place. Thus, in deserts, the want of rain and the absence of vegetation, act and react upon each other. It does not rain, because the naked, sandy surface, having no vegetable covering, becomes more powerfully heated by the solar rays, and thus radiates more heat; and the absence of rain forbids the desert being converted into a steppe or grassy plain, because without water no organic development is possible.

On the contrary, in the New World, beneath the torrid zone, among other causes that tend to create a cooler and moister climate, are enumerated the impenetrable forests which occupy the alluvial plains which are situated immediately beneath the equator; protecting with their shade the soil beneath from the direct influence of the sun beams, and exhaling in the interior of the country, at a great distance from the mountains and from the ocean, vast quantities of moisture, partly imbibed and partly elaborated. It is to the same causes that we are to attribute the luxuriant vegetation, the magnificent forests, and that abundant leafiness by which the New Continent is peculiarly characterized.

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Dr. Bridges presented a paper from Mr. James Deane, of Connecticut, on the "Fossil Foot-prints of Connecticut River," intended for publication in the Journal. Referred to Drs. Bridges, Wilson, and Leidy.

Dr. J. K. Townsend read a paper describing a new species of American Wolf, (Lupus gigas, Townsend, the giant wolf of N. America:) which, being intended for publication in the Journal, was referred to a committee, consisting of Drs. Hallowell, Wilson, and Morton. Dr. T. stated that the skin and skull of the animal described in his paper, were in the possession of the Academy, and would be mounted at an early period.

Mr. Cassin read a paper, entitled "Descriptions of new species of Birds collected by Mr. John G. Bell, in California." Referred to a committee, viz.; Drs. Wilson, Townsend, and Leidy.

October 27th.

Dr. Morton, President, in the Chair.

The Committee on Mr. Deane's paper, "On the Fossil Foot-prints of the Connecticut River," reported in favor of publication in the Journal.

The Committee on Dr. Townsend's description of a new American Wolf, (Lupus gigas, Townsend,) reported in favor of publication in the Journal.

The Committee on the following papers by Dr. Leidy, read at the meetings of October 1, Oct. 8th, and Oct. 15th, 1850, reported in favor of their publication in the Proceedings.

Contributions to Helminthology.

By Joseph Leidy, M. D.

1. Ligula Tritonis.—Body ribbon-like, thin, translucent, nearly smooth, faintly yellowish white, posteriorly obtusely rounded. Head thickened, rounded, transversely corrugated, yellowish; extremity triangularly rounded, laterally compressed, front and back, with a short, longitudinal, contracted depression.

Whole length 1 in. 9 lines; breadth of body 1-3d line, thickness 1-12th line; length of head 1 line, breadth 1-4th line, thickness 1-9th line.

Habitation and Remarks.—This species was sent to me by my friend Prof. S. F. Baird, of Carlisle, with the note "Found embedded in the muscles of the back of Triton (Cynops) dorsalis." It is the smallest species which has as yet been discovered, and the first among batrachian reptilia. The specimen sent to me consisted of two fragments of the same individual preserved in alcohol. Examined beneath the microscope it presented no trace of articulation or interior definite organs.

2. Pentastomum *Didelphidis Virginianæ.*—Body subcylindrical, curved one third or one-half a circle, dorsum convex, bentrum concave, posteriorly narrowed and constricted a short distance from the extremity, which is rounded. Color white, opaque. Composed of forty or fewer annulations. Head posteriorly convex, anteriorly plain or slightly concave; mouth nearly round; hooks simple, situated in a curved line of which the mouth forms the centre.

Whole length 3 to 5 lines, breadth 3-5th of a line; annuli generally 1-80th inch wide; mouth 1-200th inch in diameter; hooks 1-200th inch long.

Habitation and Remarks,—I found 9 individuals of this entozoon, in C shaped cysts, the circle being 2 lines in diameter, imbedded in the liver just beneath the peritoneal surface, in Didelphis virginiana. It may probably be the *Pentastomum subcylindricum* of Diesing,[*] which was found in cysts upon the liver of two South American species of Didelphis, and several other animals, but the largest of those found in our D. virginiana, is equal only to the smallest of P. subcylindricum, and has not more than one-half the number of annulations.

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[*] Annal. d. Wien. Mus. 1 p. 21. *Dujardin:* Hist. Nat. des Helminthes p. 305. *Diesing:* Systema Helminthum, Vol. I, p. 611.

3. PENTASTOMUM EURYZONUM, *Diesing*.

Linguatula Diesingii, *Van Beneden*.; Bull. de l'Acad. Roy. des Sc. de Brux. 1848; Mem. de l'Acad. de Brux. xv. An. Sc. Nat. 3 ser. xi.

Pentastomum euryzonum, *Dies*. Syst. Helminth.

Body cylindroid fusiform, curved, posteriorly subacute. Color yellowish white, opaque. Annulations under 20, with wide intervals. Head plano-convex; mouth round.

Whole length 6 lines; breadth anteriorly 1 line, of antepenultimate annulus 3-5ths of a line. Mouth 1-40th of an inch.

Habitation.—I found five individuals of this species, enclosed in C shaped cysts, upon the surface of the liver beneath the peritoneum, in a half-grown Cynocephalus porcarius.

4. PENTASTOMUM PROBOSCIDEUM, *Rud*.

Echinorhynchus Crotali, *Humboldt*. Ansicht d. Natur. 1 Aufl.

Distoma Crotali, *ib.; Rud*. Entoz. hist. II.

Porocephalus Crotali, *Humb*. Recueil d'Obs. de Zool.

Polystoma proboscideum, *Rud*. Mag. d. Berl. Gesell. Nat. Fr. VI.

Linguatula proboscidea, *Van Beneden*, Mem. d' l'Acad. de Brux. xv.

Linguatula clavata. *Wyman*. Jour. Bost. Nat. Hist. Soc. Vol. V.

Pentastomum proboscideum, *Rud*. Synop.; *Humb*. Ans. d. Nat.; *Bremser*, Icones; *Diesing*, An. d. Wien. Mus.; Syst. Helminth. I.

Body sub-clavate, broadest anteriorly, recurved, posteriorly dilated ovate, subacute. Color yellowish white; integument translucent. Annulations 36, becoming indistinct towards the extremities. Head round, mouth round. Male furnished with two short projecting papillæ just above the mouth; penis papillaform, projecting 1-4th of a line.

Length of female 2½ to 3½ inches, breadth of head 2½ lines, narrowest part of body 1 line, just anterior to posterior dilatation, which latter is 3 lines long by 1½ broad. Length of male 1 inch 3 lines to 1 inch 5 lines; breadth of head 1½ lines; narrowest part of body ½ line; breadth of posterior dilatation 3-5ths of a line.

Habitation and Remarks.—I found six females, four males, and a young individual of this species 4½ lines long in the pulmonary cavity of a Boa constrictor. The form of the body in the male and female is the same.

5. ECHINORHYNCHUS OVATUS.—Body compressed ovate, posteriorly subacute, curved, yellowish white, opaque, presenting 12 to 14 transverse corrugations; neck distinct, short, cylindrical. Proboscis globular, armed with 6 rows of recurved hooklets.

Length 2 lines, greatest breadth 1-10 inch, greatest thickness 3-5 line. Proboscis ½ line.

Habitation.—Two individuals were found in the iliac portion of the small intestine of Felis leopardis.

6. ECHINORHYNCHUS TORTUOSUS.—Body brownish white, opaque, very much contorted and transversely corrugated, subcompressed, dilated just below the middle, attenuated towards the extremities, most so anteriorly, posteriorly recurved and obtuse. Neck short. Head subglobular, armed with 4 rows of simple recurved hooklets.

Length 2 inches 8 lines; greatest breadth 1-7 inch; greatest thickness 1 line, diameter, 1 line from the neck, 1-5 of a line; from the posterior extremity 4-5 of a line. Proboscis and neck 1-5 line long.

Habitation.—Found with the anterior 3 lines of its length buried in an oval tumor, 4 lines in diameter, in the mesentery of a Didelphis virginiana.

7. Echinorhynchus *Pici collaris.*—Body white, opaque, subcylindrical, subcompressed and curved posteriorly, transversely corrugated, and slightly so longitudinally, moderately dilated anteriorly. Neck very short. Proboscis short, cylindrical, contracted in the middle, with the free extremity rounded and furnished with 4 rows of simple, recurved hooklets.

Length 1 inch 8 lines, breadth anteriorly 1-10 inch, thickness 1-12 inch; posteriorly 4-5 line broad by 3-5 line thick. Proboscis 4-5 line long, thickness ½ line.

Habitation.—Intestine of Picus collaris.

Remarks.—Differs from the E. Pici, *Goeze*[*] which has a long linear proboscis with 8 or 10 ranges of hooklets, and is narrower in front than behind, just the reverse of the species just described.

Notes on the Development of the Gordius aquaticus.

By Joseph Leidy, M. D.

Just four years ago I exhibited to the Academy a mass of living hair-worms or Gordius aquaticus, consisting of fourteen individuals strangely knotted together, and recalling the appropriateness of the Linnean name.

It is a vulgar opinion that the Gordius is a horse hair which has become vivified from maceration for several weeks in a spring or pool of fresh water, an error which has probably arisen from their frequently being found in water filling a wagon rut, or the drinking trough of a horse. I have even been informed by some persons, though by those not given to observe such matters, that they had perceived the direct transmutation of horse hairs into writhing worms, and I was at one time so silly as to be led to try the experiment, with what success it is unnecessary for me to state.

The Gordii alluded to in the mass, were blackish-brown in color, from 6 to 10 inches in length, and most of them had attached to the posterior extremity of the body a long, white, opaque cord, in several instances nearly as long and as thick as the worms themselves. These cords some of the members may recollect I pointed out at the time as being strings of the ova of the Gordii, but I then was not so well acquainted with the history of the Gordius as at present; that is to say, I did not know that we have no knowledge whatever of its origin or development, and although through curiosity I traced for a few days the development of the embryo in ovo, yet I did not do it with that care which its importance demanded. But however imperfect have been the observations made, with this acknowledgment, I have thought it would be well to record them, with the hope that they may not only throw some light upon the obscure nature of the Gordius, but also lead others to the discovery of a similar opportunity of investigating this animal under more favorable circumstances of locality and information. The observations I have withheld for a length of time in the hope that I might be able to verify or correct them, but failing to do so to the present time, I now reluctantly put them forth from my notes taken at the time.

The white cords before mentioned consisted of numerous oval ova closely aggregated together. These when examined beneath the microscope, on the first day after I obtained them, exhibited a white, granular yolk divided into four globular masses connected together and surrounded by a transparent albumen. Each mass contained in its centre a clear cell or vesicle. On the second day the separation among the yolk masses was less distinct and upon the third day the whole had united into one oval, finely granular body, and the interior vesicles had disappeared. The fourth and fifth days no perceptible change was observable. From the sixth to the eighth day the yolk had become conical in form, and upon the ninth day the base of the cone exhibited a cleft or fissure which by the tenth day had extended two thirds the length of the mass. During the whole of this period the yolk retained its granular character and was motionless. Upon the eleventh day it resembled a cylinder doubled upon itself, or the outline of the embryo had been forward, and one extremity of it, corresponding to the head had become translucent from a solution of the granular matter within. The other or tail end was subacute. The twelfth day the translucency had extended itself in the interior part of the embryo, the extremity of which had advanced beyond the others and presented an emargination communicating with an orifice opening into a canal visible in the interior, and from the edge of the extremity was developed a circle of short filaments which projected downwards and outwards. From the thirteenth to the fifteenth day the granular matter had entirely undergone solution within the anterior half of the embryo, and the latter had become somewhat dilated. The interior canal was also more distinct, and the bordering filaments of the extremity were larger. In the course of the sixteenth to the eighteenth day the translucent half of the animal was separated from the other by a constriction, and the canal in the interior presented at its anterior portion a clavate tubular body, the free end of which projected from the oral aperture. The extremity of the head was surrounded by a reflected collar from the free border of which projected the filamentary appendages. The posterior half of the embryo was still granular in appearance, but had become rounded and somewhat dilated at the extremity. From the nineteenth to the twentieth day the embryo alternately retracted and protruded the tentacular or filamentary appendages, and the integument of the anterior half of the body appeared to be getting annulated, which was distinctly so by the twenty-first day. The granular matter in the posterior part of the body was also undergoing solution from the periphery towards the centre, and at its posterior part there appeared several large oil globules. On the twenty-second day the annulations of the anterior half of the body were very distinct, the posterior half was also becoming annulated, and near its extremity I for the first time observed an anal orifice and one to four small epidermal spines. On the twenty-fourth day, the tubular clavate organ before mentioned, occupying the anterior part of the alimentary canal was alternately protruded and retracted as a proboscis. The proboscis when fully protruded brought into view at its base, a second circle of tentacular filaments within the first. On the twenty-sixth day the embryo when pressed from the egg progressed forward by moving the posterior half of its body from side to side, and it alternately protruded and retracted the proboscis and the two circles of tentacular filaments. When all the latter organs were retracted, the head presented a truncate or depressed surface, and in their protrusion the extremities of the outer circle of tentaculæ and the end of the proboscis first became visible; as these advanced the second circle of tentaculæ appeared, and when the proboscis was entirely protruded, the outer tentaculæ were deeply reflected upon the outside of the body, and the inner circle projected obliquely outward and upward. The proboscis was clavate in form or cylindrical and moderately dilated at its free end, and more so at its base. The following six days no perceptible change was observable in the development of the animal, and after this the eggs showed evident appearances of decay, and I gave them no further attention.

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[*] Naturgeschichte S. 151, Taf. 11.

Two new species of Infusorial Entozoa.

By Joseph Leidy, M. D.

1. **Nyctotherus ovalis.**—Body translucent oval, posteriorly obtuse. Anterior granular areola three sided. Posterior fissure passing downwards.

Length 1-109th inch, breadth 1-33d inch.

Habitation.—The intestinum tenue of the Blatta orientalis, occasionally in considerable numbers.

2. **Bodo Julidis.**—Body translucent, faintly greenish, faintly granular with one or two large round vacuolæ and numerous minute ones; form changing, usually globular, oval, or pyriform; caudæ twice the length of the body, very active, frequently twisted into a ring at the extremity. Diameter of body 1-3000th of an inch.

Habitation.—The large intestine of Julus marginatus, in company with Nyctotherus velox, often in millions.

Description of some Nematoid Entozoa infesting Insects.

By Joseph Leidy, M. D.

Genus *Aorurus*. Sub-genus *Streptostoma*. Proc. Acad. Nat. Sci. 1849 p. 230.

1. **Streptostoma gracile.**

Oxyuris Diesingii. *Hammerschmidt*. Isis von Oken J. 1838, S. 354, Taf. iv. Fig. 6.

Body attenuated from the middle anteriorly and posteriorly, white, translucent, shining. Anterior annuli very broad and moveable upon one another. Oral annulus short, truncate; second annulus long, constricted in the middle. Tail nearly one-third the length of the body, shining, straight or curved. Pharynx short. Oesophagus consisting of two elongated, pyriform, muscular bulbs. Neck of first œsophageal bulb dilated at commencement and middle; neck of second, long, narrow and cylindrical. Ventriculus largely dilated and oval at commencement, afterward cylindrical.

Length of body 1 line; breadth opposite ventricular dilatation 1-136th inch; just above anus 1-300th inch; greatest do., 1-107th in; length of tail 1-40th inch; breadth at middle 1.1360th inch; length of first pyriform bulb of œsophagus 1-150th inch; breadth of neck of do. 1-1100th inch; do. of body of do. 1-400th inch; length of second bulb 1-214th inch; breadth of neck 1-1300th inch; do. of body 1-340th inch; do. of dilated commencement of ventriculus 1-214th inch. do. of cylindrical portion 1-330th inch.

Ova oval, 1-300th inch long by 1-625th inch broad.

Habitation.—Found in numbers of one to half a dozen in the small intestine of our domestic cockroach, (Blatta orientalis.) This species was discovered by

Hammerschmidt, who named it Oxyuris Diesingii, but as it is considered a doubtful compliment to name intestinal worms after persons, in placing it in the genus Streptostoma, I have also changed the specific name. The individuals from which my description is taken were the largest I found.

Sub-genus *Thelastoma*. Proc. Acad. Nat. Sci. 1849 p. 231.

2. THELASTOMA APPENDICULATUM.—Body cylindrical, narrowed anteriorly and posteriorly, white, translucent, shining, strongly annulated. First division of the œsophagus moderately long, cylindrical; second portion short, broad, and pyriform, ventriculus dilated cordiform at commencement, becoming rapidly narrowed and cylindrical, and sending off posteriorly a large and long pyriform diverticulum or coecum, afterward cylindrical to termination, and forming a single short convolution just posterior to the generative aperture. Tail straight, spiculate, one-fourth the length of the body. Eighty five annulations to the body of which there are twenty-eight from the mouth to the commencement of the ventriculus. Generative aperture twenty-six annulations from the anal aperture. Last annulation furnished with two short spines projecting backward.

Length of body 1 line to 1-10th of an inch; breadth at ventricular commencement 1-100th inch, at middle 1-80th inch, at anus 1-160th inch; tail 1-50th inch long, breadth at middle 1-888th inch; first portion of œsophagus 1-80th inch long, 1-533d inch broad; second portion 1-240th inch long; neck of do. 1-666th inch broad; body of do. 1-250th inch; commencement of ventriculus 1-200th inch broad; cylindrical portion 1-400th inch; diverticulum of ventriculus 1-66th inch long by 1-266th inch broad.

Ovum semi-oval, 1-258th inch long, by 1-666th inch broad.

Habitation.—Found in the intestinum tenue of the domestic cockroach (Blatta orientalis,) with the former.

3. THELASTOMA LABIATUM.—Body white, translucent, anteriorly strongly annulated. Papilla of the mouth dilated, six lobed. First portion of œsophagus cylindrical, second portion broad, pyriform; ventriculus sub-cordiform at commencement. One hundred and fifty annulations, of which there are forty from the mouth to the commencement of the ventriculus.

Length of body 1-22d inch; greatest breadth 1-200th inch: length of tail 1-40th inch; length of first portion of œsophagus 1-120th inch; breadth 1-1000th inch; second portion 1-320th inch long by 1-400th broad; breadth of ventricular dilatation 1-866th inch.

Ovum oval, 1-333d inch long, by 1-500th inch broad.

Habitation.—Found in numbers of from one to a dozen in the intestine of Polydesmus virginiensis.

4. THELASTOMA ROBUSTUM.—Body white, cylindrical, narrowed anteriorly and posteriorly. First portion of œsophagus long, cylindrical; second portion broad, pyriform. Commencement of ventriculus dilated, oval, afterwards cylindrical. Articulations of body 212, of which there are forty from the mouth to the commencement of the ventriculus, 102 from the latter to the generative aperture, and from this to the tail 70.

Length of body 2 lines; breadth at ventricular dilatation 1-75th inch; at sixth annulation from mouth, only 1-320th inch; at middle 1-66th inch; just above anus 1-75th inch; tail 1-22d inch long by 1-1000th inch broad at middle; first portion of œsophagus 1-50th inch long by 1-500th inch broad; second portion 1-178th inch long by 1-300th inch broad; ventricular dilatation 1-105th inch broad.

Ovum oval, 1-308th inch long by 1-500th inch broad.

Habitation.—Found in the intestine, in numbers of from one to three, in the larva of a lamellicorn insect.

Remark.—The descriptions of the above are entirely taken from females, considerable numbers of which I have found and possess, but I have never yet been able to discover a single male.

5. Oxyuris socialis.—Body white, narrow, cylindrical, elastic, posteriorly attenuated; mouth projecting, with a short pharynx; œsophagus consisting of two portions: first portion long, cylindrical, dilated at its posterior part; second portion, narrow, pyriform; ventriculus moderately dilated at commencement, capacious, cylindrical; tail long, narrow, acute.

Female.—From 1 line to 2 and 1-5th lines in length; breadth 1-266th inch. First portion of œsophagus 1-66th inch long, 1-800th inch broad; second portion 1-200th inch long by 1-666th inch broad. Generative aperture projecting, just anterior to middle. Tail simple pointed, 1-57th inch long from anus, 1-400th inch broad at base.

Ovum oval, white, 1-363d inch long, 1-666th inch broad.

Male.—Length 4-5ths to 3-5ths of a line; breadth 1-400th inch; posteriorly recurved. Tail pointed, furnished with five minute epidermoid prominences on the inner side, 1-133d inch long from anus. Spiculum of penis single, simple, curved, 1-400th inch long.

Habitation.—Found in numbers of from five to twenty, of which one-fifth are males, in the large intestine of the large black cricket (Acheta abbreviata.)

Genus *Hystrignathus.*—Body cylindrical, anteriorly furnished with transverse rows of simple spines projecting backward; mouth surmounting a large naked papilla; œsophagus of two portions: the first long, cylindrical, the second short and pyriform; annulations indistinct posteriorly; tail long.

6. Hystrignathus rigidus.—Body straight, rigid, cylindrical, narrowed anteriorly and posteriorly; anteriorly furnished with 106 transverse rows of simple spines projecting obliquely backward, each row corresponding to an annulation and containing about sixteen spines; anterior spines longest, equal to the width of the annulations, becoming shorter posteriorly and decreasing to mere points. First annulation of the mouth truncated, conical, smooth; second annulation smooth. Pharynx extending through the first two annulations. First portion of œsophagus long, cylindrical; second portion with a narrow cylindrical neck and globular body; ventriculus cylindrical, slightly dilated anteriorly, narrowed anteriorly; rectum elongated conical. Tail long, curved. Generative aperture very near the middle of the body.

Length 2 lines; greatest breadth 1-140th inch; tail 1-40th inch long from anus, 1-1000th inch broad at middle; anterior or spinous portion of body 1-26th inch long or one fourth of the whole length. First portion of œsophagus 1-50th inch long, 1-520th inch broad; second portion 1-190th inch long, 1-320th inch broad at body. Anterior spines 1-2000th inch long. Fifty-eight spinous annulations corresponding to the first portion of the œsophagus, twelve to the second portion. Annuli posteriorly indistinct.

Ova oval, 1-214th inch long, by 1-545 inch broad.

Habitation.—The female only I have found in numbers of one to five within, and adhering by the mouth to the parietes of, the ventriculus of Passalus cornutus.

The Committee on the following paper by Mr. Cassin, read at last meeting, reported in favor of publication in the Proceedings.

Descriptions of new species of Birds of the Genera Parus, Linn.; Emberiza, Linn.; Carduelis, Briss.; Myiothera, Ill.; and Leuconerpes, Sw., specimens of which are in the collection of the Academy of Natural Sciences of Philadelphia.

By John Cassin.

1. *Parus annexus*, nobis.

Form.—Crested; bill strong, conical; fourth and fifth quills longest and equal, wings and tail rather long, crest pointed.

Dimensions.—Total length (of skin) from tip of bill to end of tail about 5 inches, wing 2½, tail 2½ inches.

Colors.—Sex unknown. Anterior feathers of the crest black at their bases and cinereous at their tips, the most elongated of the succeeding entirely black, others margined with white, shorter occipital feathers, black; chin and throat black. Wide line from above the eye running into the crest, thence around upon the side of the neck, white. Line commencing behind the eye, running thence around and uniting with the space of the same color upon the throat, black, cheeks white. Entire superior surface cinereous, tinged with olive, quills and tail feathers brownish black, primaries narrowly edged externally with white, secondaries and tail feathers edged externally with ashy olive. Body beneath ashy white, darker upon the breast. Bill black.

Hab.—Texas, upon the Rio Grande, discovered by Mr. John Woodhouse Audubon.

Obs.—This very remarkable species, discovered in Texas by a son of the illustrious naturalist of the same name, is marked upon the head more like the *P. cristatus* of Europe than any other American species yet known. It does not resemble that species in any other character, however, being more strictly related to P. bicolor, Linn. and P. inornatus, Gamb., and like them belonging to the genus Lophophanes, Kaup.

2. *Parus atricristatus*, nobis.

Form.—Crested, wings and tail rather long. Crest pointed as in P. bicolor, Linn., bill strong, conical. Specimen now described not in mature plumage.

Dimensions.—Total length of skin from tip of bill to end of tail about 5 inches, wing 2¾, tail 2½ inches.

Colors.—Sex unknown. Crest black, front and under parts of the body ashy white, flanks ferrugineous; entire superior surface cinereous, darker upon the wings and tail, and inclining to olivaceus upon the back. Bill and legs black. Shafts of primaries reddish at their bases, those of the tail feathers white beneath.

Hab.—Texas, on the Rio Grande, discovered by Mr. John Woodhouse Audubon.

Obs.—This species is of the same general form and color as P. bicolor, Linn. and P. inornatus, Gamb.; smaller than the former, but about the size of the latter. It may be easily recognized by its black pointed crest and white front, which, so far as I know, are peculiar characters. This species, like the preceding, was discovered in Texas by Mr. Audubon, and belongs to the same genus.

3. *Emberiza bilineata*, nobis.

Form.—Bill strong; wings short, with the second, third and fourth primaries longest and nearly equal, some of the secondaries emarginate. Legs and feet rather long. Aberrant, may not belong to this genus.

Dimensions.—Total length of skin from tip of bill to end of tail about 5 inches, wing 2 and 4-10ths, tail 2 and 2-10th inches.

Colors.—Sex unknown. Line from the nostril running above the eye towards the occiput, and another from the angle of the lower mandible running upon the side of the neck, white, space between those lines including the nares and plumage under the eye and the ears, nearly black. Throat from the base of the bill, black, which color is bounded on each side by the white lines from the angles of the lower mandible, and continues to a somewhat rounded point upon the breast. Head and body above dark cinereous, inclining to brownish upon the back and wing coverts. Quills brownish. Tail brownish black, external feathers having their outer webs pure white and tipped with the same color, the brown color of these feathers extending narrowly along the shafts into the white tips. Body beneath white, tinged with cinereous. Bill bluish horn color.

Hab.—Texas, on the Rio Grande; discovered by Mr. John Woodhouse Audubon.

Obs.—This is one of the most remarkable finches yet discovered in America, and is quite unlike, even in general appearance, any other species of this country with which I am acquainted This bird was also brought from Texas by Mr. Audubon.

4. *Emberiza Belli*, nobis.

Form.—Wings rather short, second, third and fourth quills longest and nearly equal. Tail and legs rather long.

Dimensions.—♂ Total length of skin from tip of bill to end of tail about 5¼ inches, wing 2¾, tail 3 inches.

Colors.—♂ Head and neck above cinerous, shading into olive upon the back and neck.

Frontal spots on each side of the base of the bill, (scarcely united) narrow ring around the eye, and entire under surface white. Edge of the wing at flexure, yellow; superior wing coverts brown tinged with ferruginous, quills and tail brownish black, nearly all the feathers of both narrowly edged with whitish, most apparent upon both webs of the external tail feathers. Conspicuous spot upon the breast, nares, and lines from the external angles of lower mandible running downwards upon the sides of the neck, deep brownish black. Flanks tinged with rufous and with a few longitudinal stripes of brown.

♂ Slightly smaller, flanks and interior tail coverts more tinged with rufous.

Hab.—California, near Sonoma and San Diego; discovered by Mr. John G. Bell.

Obs.—This species resembles in rather a remarkable degree the Emberiza hypochondria, D'Orb. Voy. Merid. Ois· pl. 45, fig. 1, but is smaller and without the deep castaneous flanks of that species. In the bird now described, the dark spot upon the white breast is a striking feature, and is much more strongly pronounced than in any other with which I am acquainted.

I have named this species in honor of Mr. John G. Bell, of the city of New York, a gentleman possessing a very extensive knowledge of natural history, and whose attachment to the pursuit of which, induced him to make the visit to California, which resulted in the discovery of this and other interesting birds.

The following is Mr. Bell's note relating to this species: "This bird I shot first near Sonoma, and afterwards at San Diego; its habits much resemble those of the painted bunting, (*S. ciris.*) I observed several of them amongst the wormwood at the edge of the hills, sitting on the tops of the small bushes, singing, and when disturbed would dart downwards. The song is quite unlike that of any of our finches, rather low and plaintive, and perhaps most resembles that of the Swamp sparrow, (Amm. palustris.) It is neither a very active nor a shy bird, and was not rare at the localities mentioned."

In a collection of birds deposited in this Academy by Mr. E. L. Kern, and collected by him while with the expedition of Col. Fremont in 1846, there is a specimen of a young bird very much resembling that now described, but much larger, being about the size of the E. hypochondria D'Orb., and is, I think an unknown species. The specimen is not only in bad plumage, but so much injured as scarcely to admit of being mounted.

5. *Carduelis Lawrencei*, nobis.

Form.—Bill rather conical, three outer primaries longest and nearly equal; tail coverts long, tail emarginate.

Dimensions.—Total length of skin from tip of bill to end of tail about 4½ inches, wing 2 and 8-10ths, tail 2 inches.

Colors.— ♂. Head above and a small space around the bill and upon the throat, black; head behind and sides of the neck pale cinereous, shading into fine brownish olive upon the back, and into a paler cinereous upon the sides under the wings, nearly white upon the abdomen and inferior tail coverts. Lesser and exposed portion of greater wing coverts, rump, breast and belly fine pale yellow; upper tail coverts cinereous. Spurious wing, black, conspicuous.

Quills brownish black, primaries and succeeding secondaries externally edged with yellow; shorter secondaries edged and tipped with ashy white. Tail brownish black, the external feathers each with a large spot of white on its inner web, very conspicuous.

Hab.—Sonoma and San Diego, California, discovered by Mr. John G. Bell.

♀. Without black upon the head or throat, those parts being brownish olive; the yellow color upon the inferior surface more restricted.

Obs.—This beautiful little bird resembles no other Carduelis which has come under my notice. Mr. Bell's note respecting it is as follows: "This bird I first observed at Sonoma. In habits it much resembled our common Goldfinch (*C. tristis.*) The flock, out of which I shot these two, was feeding in company with the small black headed species (*C. psaltria,*) on the seeds of plants growing near the ground, and when disturbed alighted upon the nearest bushes. When flying, they keep up a constant chattering or calling like our common species. I also saw this bird at San Diego, feeding as above in company with the crimson fronted Bullfinch, (*Erythrospiza frontalis,*) in the open prairie. I never saw it in the mountains."

I have named this bird in honor of Mr. George N. Lawrence, of the city of New York, a gentlemen whose acquirements, especially in American Ornithology, entitle him to a high rank amongst naturalists, and for whom I have a particular respect, because, like myself, in the limited leisure allowed by the vexations and discouragements of commercial life, he is devoted to the more grateful pursuits of natural history.

6. *Myiothera nudiceps*, nobis.

Form.—Upper part of head bald or with a few bristle like feathers, wings with the fifth quill slightly longest, tail short, legs long. General form much like M. longipes, (Vieill.)

Dimensions.—Total length of skin from tip of bill to end of tail about 6¼ inches, wing 3 and 1-8th, tail 2¼ inches.

Colors.— ♂. Naked space upon the head blue. Entire plumage black. Wing coverts delicately edged with white, which is also the color of the basal portion of the feathers of the back, (apparent only upon raising them.) Irides white.

Hab.—Panama; discovered by Mr. John G. Bell.

Obs.—This species may readily be distinguished from others of its genus by its bald head, the naked skin of which in the living bird is, as Mr. Bell informs me, "Mazarine blue." His note is as follows: "These birds kept on the ground, running and scratching among the leaves, like the others of the same family which I send, and somewhat like our small Thrushes, (M. mustelina and solitaria.) They were constantly calling and singing a short, loud, and very curious song, which varied in several of its notes at different times, and is entirely different from that of any of our birds. This species appeared to me to be rather a stupid bird, and was easily approached; it has a habit of puffing up the feathers on its back; the head in recently killed specimens is beautiful Mazarine blue. It was represented to me as a very rare bird by several residents at Panama."

7. *Leuconerpes albolarvatus*, nobis.

Form.—Robust, wings with the fourth primary longest, secondaries broad, abruptly terminated, sub-emarginate; tail rather long, with the feathers soft at the ends. Legs and feet rather slender.

Dimensions.—Total length of skin from tip of bill to end of tail about 9 inches, wing 5, tail 3½ inches.

Colors.— ♂. Wide mask including greater part of the head and extending upon the breast, white, which is also the color of a basal portion of both webs of the primaries, and upon the outer webs in a few feathers extends for two thirds of their length. Narrow occipital band scarlet. All other parts, including body above and below, wings and tail, black.

♀. Similar, but rather smaller, and without the occipital band of scarlet.

Hab.—Near Sutter's mill, California, discovered by Mr. John G. Bell.

Obs.—Mr. Bell's note accompanying this very interesting species is as follows: "I shot this bird at the Oregon canon, near Georgetown, about 12 miles from Sutter's mill; it seemed to prefer the tall pine trees, and generally kept very high. In habits it appeared very much like the P. villosus. Its note is clear and sharp, and it is very active and lively in its movements." Has no near relative yet discovered in North America, and resembles in general characters only the L. dominicanus, (Vieill.) Spix. Av. Bras. pl. 50.

ELECTION.

Dr. John Evans, of New Harmony, Indiana, was elected a *Correspondent* of the Academy.

DONATIONS TO MUSEUM

In September and October, 1850.

September 3d.

Thirty-four hundred and forty-nine specimens of Birds' Eggs from the collection of M. O. Des Murs, 976 do. from the collection of John Gould, Esq., and 207 do. from other sources, comprising 1500 species. Also ten Birds' nests from M. Des Murs' collection, thirty-three do. from Mr. Gould's, and twenty do. from other sources. Presented by Dr. T. B. Wilson.

September 10th.

Three specimens of Hippopus maculatus; one Tridacne, one Cytherea; three serpents from the China sea; a large living Tortoise from Java; and ten Bird skins. Presented by Capt. John Land.

Numerous specimens, in spirits, of American Reptilia. From Mr. Samuel Ashmead.

October 1st.

A batrachian reptile from New Mexico, probably a young Axolotyl. Presented by Col. J. J. Abert.

Cranium of Cynocephalus porcarius, from the Cape of Good Hope, presented by Dr. Watson to Dr. Morton, and deposited by the latter in the Academy.

Scarabæus tityus ♂, from Cape May. From Dr. Townsend.

October 8th.

Crystallized Mica, from Chester Co., Pennsylvania. Presented by Mr. F. F. Seal.

Petromyzon ———?, from the Atlantic Ocean. From Dr. Wilson.

Coal Fossils from the Pennsylvania Mines. From Mr. Dewey, of Philadelphia.

Chelonura serpentina. From Dr. Morton.

Dr. Morton also deposited the following Crania:—Two ancient Egyptians, four Swedes, one Ostrogoth, two Californians, one Greek, two Brazilians, one Seneca, one Mexican. Also the heads of Ovis montana, fem., and Cervus macrotis.

October 15th.

Living specimen of Crotalus durissus. From Mr. Ash.

Specimens of Palæmon, Elaps and Cyclura. From Dr. John Neill.

October 22d.

Dr. Morton deposited Crania of Chelonia midas (2,) Simia (2,) two species of Gulo, one Lupus, one Arctomys, one Procyon.

Horn of Rhinoceros bicornis? from South Africa. From Mr. Watson through Dr. G. Watson.

A collection of American Coleoptera, in spirits. From Dr. Watson.

DONATIONS TO LIBRARY

In September and October, 1850.

September 3d.

First Biennial Report on the Geology of Alabama. By M. Tuomey. 8vo.

Dr. Wilson presented the following on the usual conditions :

Observations sur les devellopement et la disposition des œufs de plusieurs éspeces ovipares appartenent au genre Hirudo. Par M. Rayer,

De la Muscardine (maladie des vers á soie.) Par M. le Comte Jacques Barbo, de Milan.

Notice sur la Sangsue officinale, &c. Par M. J. Achard.

Recherches géographiques sur l'Afrique centrale. Par M. Latreille.

Recherches sur la formation de la fibre musculaire. Par M. Dutrochet,

Mémoire sur la generation des animaux à bourse.

Ovologie du Kangaroo. Par M. Costi.

Lagographia, ab M. Wolffg. Waldungo.

Notice des Insects de la France réputés venemeux. Par M. Amoreux. 8vo.

Vade Mecum für Naturaliensammler. Von F, W. L. Suckow. 8vo.

Avis pour la transport par mer des Arbres, des plantes vivaces, &c. Second ed. 12 mo.

Ensayo de una historia de los Peces y otras productiones marinas de la Costa de Galicia. Por Dr. Joseph Cormade. 12 mo.

Nouvelle relation d'un voyage fait aux Indes Orientales. Par M. Dillon, M. D. 12 mo.

Souvenirs d'un voyage á Sydney fait pendant l'annee, 1845. Par M. Eugene Delessert de Havre. 8vo.

Description du Cape de Bonne Esperance. Par M. Pierre Kolbe. 3 vols. 12mo.

Catalogue Systematique de la collection de Coquillages, &c., de feu Sieur Michel Oudann. 8vo.

Les Pigeons de voliére et de Colombier. Par MM. Boitard et Corbie. 8vo.

Les Ages de la Nature et histoire de l'espéce humaine. Par M. le Comte de Lacépede. Tome 1me. 8vo,

Dissertatio physiologica inàug. de circulatione et respiratione Animalium pulmonibus instructorum. Auctore G, J. van der Boon Mesch.

Precis d'anatomie comparée. Par H. Holland. 8vo.

Descripcion de differentes piezas de historia natural, Las mas del Ramo maritimo representadas en setenta y cinco laminas. Su autor Don Antonio Parra. 4to.

Ornithologiæ specimen novum. Auctore Petro Barrere. 4to.

Fabii Columnæ Opusculum de Purpura. Ab Johann Dan Majoris, M. D. 4to.

Nuova Filosofia de la naturaleza del Hombre, &c.; por Dona Oliva Sabuco de Nantes Barrera. 4to.

Relazione del Ritrovamento dell 'uova di Chioccioli di A. F. M. in una lettera al Sig M. Malpighi. 12mo.

Specimen Zoologicum, sistens observationes præsertim osteologicas de Casuario Novæ Hollandiæ. Auctore P. I. I. de Fremery.

Die naturliche historie des Nashorns. Von Dr. Georg L. Huth. 4to.

Die Conchylien in dem Natural-kabinet seiner Hochfürstlichen Gnaden des Hernn Fürsten und Bischofs von Konstanz. 8vo.

Experiences servant á démontrer que la pathologie des animaux á sang froid est exempte de l'acte morbide qui dans les animaux á sang chaud a reçu le nom d'Inflammation. Par le Dr. Robert Latour.

De l'utilité de la culture des Feves et des Pommes de terre, dans le departement du Calvados, Mémoire sur un Insecte et un Champignon, qui ravagent les Cafiers aux Antilles. Par Mess. Guerin-Meneville, et Perrottet.

Over het nieu geslacht Nyctophilus Leach. Door C. J. Temminck.

Recherches sur la génération des Mammiféres. Par M. Victor Coste.

Lettre de M. Coste a M. Raspail sur l'Embryogénie.

Observationes microscopiques sur les Animalcules des eaux et des thermes de Carlsbad. Par A. C. J. Corda.

Aperçu d'histoire naturelle.

Journal of the Franklin Institute, 3d series, Vol. 20, No. 2. August 1850.

September 10th.

Report of the Joint Committee on Levees. From Prof. C. G. Forschey.

The American Journal of Science and Arts, 2d series, No. 28. Sept. 1850. From the Editors.

Address delivered at the Anniversary meeting of the Geological Society of London, 15th Feb., 1850. By Sir Charles Lyell. From Dr. Morton.

Dr. Wilson presented the following on the usual condition:

Historia naturalis curiosa Regni Poloniæ, &c., desumpta opera P. G. Rzaczynski. 4to.

Cynographia curiosa seu Canis descriptio, et mantissa curiosa complectente J. C. Libell de Canibus Britannicis et J. H. Meibonn epistola de Kounophora. Aucta a C. Paullin. 4to.

Voyages dans les Deux Oceans, 1844 a 1847. Par M. Eugene Delessert. 8vo.

Voyage en Angleterre, en Écosse, et aux Iles Hebrides. Par B. Faujas St. Fond. 2 vols. 4to.

L'Ambassade de la Compagnie Orientale des Provinces Unies vers l'Empereur de la Chine; fait par les St. Pierre de Goyer et Jacob de Keyser. Folio.

Description des Plantes de l'Amerique. Par le R. P. Charles Plumier. Folio.

Systematischer Catalog der Preparate des Anatomischen Museums der König-Rheinischen F. W. Univer. zu Bonn. Von Dr. A. F. J. C. Meyer.

System dentaire des Mammiféres et des Oiseaux. Par E. Geof. St. Hilaire.

Sulla Epistola Zootomica del Prof. Otto al celeb. Blumenbach Brevi Cenni del Prof. Guiseppe Mangili.

Essai de classification naturelle et d'analyse des phénomenes de la vie. Par P. N. Gerdy.

Mémoire pour servir a l'histoire des insectes ennemis de la Vigne et a l'indication des moyens propres a prevenir leurs ravages. Par J. Vallot, M. D.

Discorso sulla Antroposofia del Dr. Lucio Cipriano.

Observations sur les rapports de la mére et du pére, avec les produits relativement au sexe et a la resemblance. Par M. Girou de Buzareingues.

Nécessité d'introduire l'etude de la Zoologie dans l'enseigment agricole. Par M. F. E. Guerin-Meneville.

Recherches microscopiques sur l'Acarus Scabiei. Par MM. Laroi et Vandenbecke.

Considerations sur la Peau et en particulier sur le Derme. Par le Dr. de Buzareingues.

Mémoire sur les rapports des sexes dans les naissances de l'éspece humaine. Par le Dr. de Buzareingues.

Nouveaux coups de Fouet scientifiques.

Recherches anatomiques et physiologiques sur la maladie contagieuse qui attaque les Vers a Soie, et qu'on designe sous le nom de Muscardine. Par M. Victor Audouin; et Nouvelles experiences sur la meme (la Muscardine,) par le meme.

Forschungen über Geschlechts-natur. Von Karl Aug. Erb.

Rapport fait au nom de la commission chargée d'indiquer la Société les moyens les plus efficaces pour la destruction du ver Blanc et du Hanneton.

Discours relatifs a l'histoire naturelle. Par J. Draparnaud.

Observationes nonnullæ microscopicæ fila (quæ primitiva dicunt) in inflammatione spectantes. Auctore Theophilus Gluge.

Notice historique sur les découvertes faites dans les Sciences d'observation par l'étude de l'organisation des Grenouilles. Par M. C. Dumeril.

C. Ph. F. Groshaus, M. D., specimen anatomico-physiologicum de systemate uropoietico, quod est Radiatorum, Articulatorum et Molluscorum acephalorum.

J. Van der Hoven oratio de aucta et emendata Zoologica post Linnæi tempora, &c.

Mémoire sur la structure élémentaire des principaux tissues organiques des animaux. Par H. Milne Edwards.

Analyse de la philosophie anatomique. Par M. Flourens.

Notice sur l'histoire, les mœurs et l'organisation de la Giraffe. Par M. Joly.

Recherches d'anatomie et de physiologie sur un embryon monstreuse de la Poule domestique, circonscrit dans l'existence solitaire d'un cœur. Par Charles le Blond.

Andentungen über den Gang der bei Bearbeitung der Naturgeschichte besonders der Zoologie von ihrem Beginne bis auf unsere Zeiten genommen ist. Von Dr. F. S. Leuckart.

Mémoire sur les organes de l'absorption chez les Mammiféres. Par M. Magendie.

Systematisches Verzeichniss der Petrefacten-Sammlung des Verstorbenen wirkleichen Geh.-Raths Freihernn v. Schlotheim.

Nouvelles instructions sur les eaux minérales de Chateldon en Bourbonnois.

Catalogus Conchyliorum terrestrium fluviatiliumque Europæ collectionis Caroli Porro.

Mémoire pour servir d'introduction a un ouvrage sur la respiration des animaux. Par G. Fischer.

De la nature des Étres. Par Ch. Girou de Buzareingues.

September 17*th*.

The following were presented by Dr. Wilson on the usual condition:

Archiv für Naturgeschichte. Herausgeg. von Dr. F. H. Troschel. No. 5, 1818., Nos. 3 and 4, 1849.

Annales de la Société Entomologique de France. 2d series, No. 4, 1849.

Zeitschrift für Malakozoologie. Von K. T. Menke, M. D., und Dr. Pfeiffer. No. 3, 1850.

Comptes rendus. Nos. 13—25, Tome 30. No. 1, Tome 31, et index du Tome 29.

The London Athenæum, for June and July, 1850.

Journal of the Franklin Institute, Vol. 20, 3d series, No. 3.

Revue et Magazin de Zoologie. Nos. 3, 4, 5, 1850.

Notice sur George Cuvier. Par M. Victor Audouin.

Essai sur l'histoire naturelle des Serpens de la Suisse. Par J. F. Wyder.

Mémoire sur les Os anciens et fossiles, et sur d'autres residus solides de la petrefaction. Par M. J. Girardin et M. F. Preis.

Remarques sur les oiseaux fossiles. Par Paul Gervais.

Muscardine—Mission confiée par M. Cunin-Gridaine a M. Guerin-Meneville.

Recueil de Planches des Coquilles fossiles des environs de Paris. Par M. De la Marck. 4to.

Catalogus Librorum quibus usus vir clarus Gerardus Sandifort. 8vo.

Histoire de Botany Bay. Par M. Jules de la Pilorgerie. 2d edition. 8vo.

Summi polyhistoris G. G. Leibnitzii Protogæa: a C. L. Scheideo. 4to.

Di Crostacei e degli altri Marini Corpi che si truavaceo su monti libri duæ di Anton-Lazzaro Moro. 4to.

Observations sur les Insectes. Par Marcel de Serres. 4to.

Encefalotomia di alcuni quadrupedi, communicata da Vincenzo Malacarne. 4to.

Anatomie und naturgeschichte des Drachens. Von Dr. F. Teidemann. 4to.

Beyträge sur anatomie und Physiologie der Thiere. Von Dr. J. A. Albers. Part 1. 4to.

Catalogo ragianato e descrittivo della Raccolta de Serpenti del Museo dell J. R. Universita de Pavia del Dr. Fillippo de Filippe.

Sopra a vestigi di Crostacei Entomostraci del genere Ciclopo di Muller in uno schisto marnoso ittiolitico, &c. Di Ramillo Ranzani.

Recherches sur les Coquilles fossiles de la Province d'Anvers. Par H. Nyst.

Testacea novissima Insulæ Cubanæ et Americæ Centralis. Auctore Arthur Morelet.

Catalogue des Coquilles trouvées sur les Cotés du departement de la Manche. Par M. Greville.

Mémoire sur des Cygnes qui chantent. Par M. A. Mongez.

Observations sur les mœurs et les habitudes des oiseaux de la Savoie. Par M. J. B. Bailly.

Catologo degli animali invertebrati marini del Golpho di Geneva e Nizza observata da Gio. Batta Verany.

Histoire naturelle et iconographie des Insectes coléoptéres d'Europe. Par M. Latreille et M. le Comte Dejean. Nos. 1, 2, 3.

Mémoire sur les Podurelles. Par M. l'Abbe Bourlet.

Mémoire sur le mécanisme de la respiration des Poissons. (Dumeril.) 8vo.

Catologo metodico del Mammiferi Europei di Carlo L. Principe Bonaparte.

Specchio generale dei sistemi Erpetologico, Anfibiologico ed Ittiologico di C. L. Principe Bonaparte.

Beobachtungen aus der Zootomie und Physiologie. Von G. R. Treviranus. Part 1. 4to.

Dissert. anatomico-physiolog. inaug. de Manducatione Hominis ceterorumque Mammalium. Auctore P. H. O. Canzius.

Mémoire sur quelques nouveaux genres de Mollusques et de Vers Lithophages. Par le Cit. Flourien-Bellevue.

Rapport fait a la Société sur les moyens de prévenir et d'arreter les ravages de l'alucite des grains; au nom de la Commission composée de MM. Busche, Darblay, &c.; Husard fils rapporteur.

Sulla malattia attualmente Regnante ni Bovini e sulla scielta del metodo curativo. Lettera del Dott. Pietro Debo al Sig. Sommariva.

October 1st.

Della Mnemotechnia orvero del modo di meravigliosamente facilitar la memoria mediante l'associazone delle idee. Del Prof. Consoni Malanese. From the author.

Reports of Lieut. Simpson and Capt. Marcy to the War Department, on the route from Fort Smith to Santa Fe. 8vo. From Col. J. J. Abert.

Du Systéme nerveux chez les Invertébrés (Mollusques et Annelidés) dans ses rapports avec la classification de ces animaux. Par M. Émile Blanchard. From the author.

De l'appareil circulatoire et des organes de la respiration dans les arachnides. Par M. Blanchard. From the same.

Second Mémoire sur l'organisation des Malacobdelles. Par M. Blanchard. From the same.

Dr. Wilson presented the following on the usual conditions:

Nouveau systeme sur la generation de l'Homme et celle de l'oiseau. Par Charles Denys de Launay. 12mo.

Histoire des Indes Orientales. Par M. Soucher de Rennefort. 12mo.

De Hyena odorifera *ἐξέτασις* Petri Castelli Romani: ed. nouv. 12mo.

Éloge de M. le Baron Georges Cuvier. Par M. le Baron Pasquier.

Promenades du Jardin des Plantes. Par MM. Rousseau et Céran Lémonnier. 12mo.

Voyage et avantures de Francois Leguat et de ses compagnons en deux isles desertes des Indes Orientales. 2 vols. 12mo.

Letters a un Americain sur l'histoire naturelle de Buffon (Delignac.) 12mo.

Élements d'histoire naturelle. Par F. de Guernel. Parts 1 and 2. 12mo.

Études sur la Muscardine; maladie des Vers a Soie: faites par MM. Guerin Meneville et Robert.

De la Peche du Parcage et du commerce des Huitres en France, Par M. P. A. Lair. 8vo.

Experiences et observations sur la reproduction des animaux domestiques. Par M. de Buzareingues.

Dell 'uomo considerato come un proprio regno del 'Istoria naturelle: Del Prof. Georgio Jan.

Prodromus Systematis Ichthyologiæ C. L. Bonaparte Principe di Musignano.

Bijdragen tot de Natuurlijke Gescheidenis von dem Negerstein: door J. Van der Hoeven. 4to.

P. M. Augusti Broussonet, M. D. Ichthyologia; sistens Piscium descriptiones et icones.

Prodromus Icthyologiæ Scandinavicæ: Auctore S. Nillson. 8vo.

Description d'une Crane colossal de Dinotherium giganteum trouve dans la Province Rhénane du Grand Duché de Hesse Darmstadt. Par MM. de Klipstein et Kaup.

Gulielmi Pisonis M.D. de Medicina Brasiliensi libri quatuor, et Geo. Marcgravi de Leibstad historiæ rerum naturalium Brasiliæ libri octo. Folio.

Les dons marveilleux et diversement colorées de la Nature dans le regne mineral, &c. Par M. Buchoz. Folio.

Untersuchungen über die Gefaessverbindung zwischer mutter und frucht in dem Saugiethieren. Von Karl Ernst von Baer. Folio.

Egenhandiga Anteckninger af Carl Linnæus orn Sig Sjelf med Anmarkningar och Tillagg. 4to.

October 8th.

Otia Ægyptiaca. Discourses on Egyptian Archæology and hieroglyphical discoveries. By George R. Gliddon. 8vo. From the Author.

Hand-Book to the American Panorama of the Nile. By G. R. Gliddon. From the same.

Dr. Wilson presented the following on the usual condition:

Précis d'une voyage au Cap-de-Bonne-Esperance. Par M. P. Delalande.

Memorias sobre la Purpura de los Antiguos. Par D. Juan Pablo Canals y Marti.

Sopra un nuova genere di Spongiali Silicei. Dal Da. Giovanni Domenico Nardo.

Fragments sur les organes génito-urinaires des Reptiles et leurs produits. Par G. L. Duvernoy.

Delphinus leucopleurus: nova species descripta ab H. Rasch.

Mémoire sur plusieurs nouveaux organes propres aux Oiseaux et aux Reptiles. Par F. Magendie.

Essai pour servir a l'histoire des animaux du Midi de la France. Par M. de Serres.

Breves animalium quorundam maxima ex parte marinorum descriptiones. Auctore F. S. Leuckart.

Histoire d'une petit Crustacé (Artemia salina Leach) auquel on a faussement attribué la coloration en rouge des Marais salans Mèditterranéens. Par M. Joly.

De l'Amnios chez les Oiseaux. Par Henri Jacquart.

Propositions sur la Monstrosite consideree chez l'Homme et les auimaux. Par Isidore Geoffroy St. Hilaire.

Prodrome d'une histoire naturelle, &c., de Cantharides. Par I. Victor Audouin.

Disquisitio anatomica de Pinguedine animali. A. C. H. E. Allmer.

Dissertation sur la place que la famille des Ornithorhynques et des Echidnes doit occuper dans les series naturelles. Par H. M. Ducrotay de Blainville.

Centurie de Lepidoptéres de l'Ile de Cuba contenant la description et les figures colorees de cent especes de Papillons nouveaux ou peu connus. Par Ph. Poey. Nos. 1 and 2. 4to.

Fête Séculaire de Ch. de Linne celébrée par la Société Imperiale des Nat. de Moscou le $\frac{21}{12}$ Juin 1835. Par G. Fischer de Waldheim.

Sur l'huitre des Cotes de France. Par M. Carbonnel.

Notice sur le Musee Conchylogique de M. le Baron Benj. Delessert. Par M. Chenu.

Notice sur plusieurs nouvelles espéces de Cyclades decouvertés dans les environs de Valenciennes. Par N.-A.-J.-Normaud.

C. J. Temminck observations sur la classification methodique des Oiseaux, et remarques sur l'analyse d'une nouvelle Ornithologie élémentaire. Par L. P. Veillott.

ıa méthodique des Mollusques terrestres et fluviatiles vivants, observés
)epartment de Maine-et-Loire. Par M. Millet.
rt fait à l'Acad. des Sci. de Paris sur un ouvrage inedit ayant pour titre
ı Methodique de la classe des Cephalapodes.' M. Latreille, rapporteur.
lerationes génerales sur les Faluns: description des Terrains tertiaires
:tagne et des principaux fossiles qui s'y trouvent. P. P. Duchassaing.
ire sur des Roches Coquilliéres trouvées a la Cime des Alphes Dauphi-
sur des Colonnes d'un Temple de Sérapis a Pouzzol prés de Naples.
B°°.
Iuitre et de son usage comme aliment et comme remède. Par Etienne
e.
gue des Oiseaux du Departement de la Manche. Par Emanuel Cani-

ı Nummulites. Par Dr. Scortegagna de Lorrigo.
go dei Molluschi della Lombardia compilato di Fratelli Antonio G.
tista Villa.
ıitio systematica Conchyliarum terrest. et fluviat. quæ adserventur in
ne fratrum Ant. et Jo. Bapt. Villa.
'azioni sullo stato della Zoologia in Europa in quanto ai Vertebrati nell'
ı0 '41. Da Carlo Luc. Principe Bonaparte.
.ptive catalogue of the Lepidopterous Insects contained in the Museum of
. E. I. Co. By Thos. Horsfield, M. D. Parts 1 and 2. 4to.
gue des livres composant la Bibliothéque de feu M. Fred. Cuvier; do. de
: Baron de Gérando; do. de feu M. Dumont de St. Croix; do. de Mr.
. De Nantes; do. de feu M. D'Arcet; do. de MM. L. et B.; do. de M.
Russy; do. de feu M. De Lamarck; do. de feu M. le Dr. Breschet; do.
:. le Baron R. Desgenettes; do. de feu M. Alex. Lauth; do. de feu Chas.

October 15th.

ıl of the Indian Archipelago and Eastern Asia. Vol. 4. Nos. 5 and 6.
e Editor.
edings of the Zoological Society of London. Part 17, 1849. From the

ts of the Council and Auditors of the Zoolog. Soc. of London. April 29,
'rom the same.
ectus Systematum Herpetologiæ et Amphibiologiæ Caroli L. Bonaparte.
reformata, 1850. From the Author.
ectus generum Avium. C. L. Bonaparte: pp. 233—344, et pp. 353—400.
e Author.
es de la Société Linnéenne de Lyon. An. 1847—1849. 8vo. From
ety.
ires de l'Académie des Sciences, &c., de Lyon. Classe des Sciences.
. et 2. 8vo. Classe des Lettres. Tomes 1 et 2. 8vo. From the Society.
es des Sciences physiques et naturelles d'agriculture et d'industrie pub-
la Société Royale d'Agriculture, &c., de Lyon. Tomes 10 et 11.
rom the Society.
enth memoir with reference to the law of Storms in India. By Henry
on. From the Author.
'ilson presented the following on the usual condition.
ibutions to Ornithology. By Sir William Jardine. Part 3, 1850.
actions of the Botanical Society of Edinburgh. Vol 4. Part 1.
ılogia Britannica. By W. H. Harvey, M. D. Parts 48, 49.
natisches Verzeichniss der Europaischen Schmetterlinge von Heyden-

edings of the Zoological Society of London, with illustrations. Part 3.
December, 1849.
graphie des Poissons fossiles du vieux grés rouge, ou Systéme Dévonien,
Britanniques et de Russie. Par L. Agassiz. 4to. and Atlas folio.

Rhea; Zeitschrift für die gesammte Ornithologie. Von Dr. Thienemann. Part 2.

Journal of the Royal Geographical Society of London. Vol. 20, pt. 1, 1850.

Annales des Sciences naturelles. 3me. serie. Tome 12, Dec. 1849.

History of British Mollusca and their shells. By Prof. Forbes, and W. S. Hanley. Parts 30 and 31.

Quarterly Journal of the Geological Society. Vol. 6. No. 23.

Annals and Magazine of Natural History. Vol. 6. 2d series. Nos. 31, 32.

Transactions of the Royal Society of Edinburgh. Vol. 19, pts. 1 and 2. 4to.

Abbildungen und Beschreibungen neuer oder wenig gekannter Conchylien herausgegeben von Dr. R. A. Philippi. 3d Vol., pt. 7.

Philosophical Transactions of the Royal Society of London. Part 1, 1850.

The Birds of Asia. By J. Gould. Part 2, folio.

General Zoology: or systematic Natural History. By George Shaw, M. D. 14 Vols. 8vo.

Caroli Linnæi Systema Naturæ. Editio decima reformata. 2 vols. 8vo.

Report of the nineteenth meeting of the British Association for the advancement of Science. 8vo.

Handbuch der Zoologie. Von Georg Aug. Goldfuss. 2 vols. 8vo.

The Genera of Diurnal Lepidoptera. By Edward Doubleday, continued by O. Westwood. Parts 33 and 34.

October 22d.

Dr. Wilson presented the following on the usual condition:

Catalogue des Testaeés vivans envoyés d'Alger par M. Rozet au cabinet d'histoire naturelle de Strasbourg. Par M. Michaud.

Bestimming der hundsart krokute und der Barenart Saribur samt deren Abbildung. Von Prof. Zauschner.

De Apodis cancriformis Shæf. anatome et historia evolutionis. Dissert. inaug. zootomica. Auctore Ernestus G. Zaddach.

Dissertatio anatomica-physiologica de peculiari arteriorum extremitatum in nonnullis animalibus dispositione. Auctore H. Vrolik.

Vier Abbildungen des Schädels der Simia satyrus, von verschidenem Alter zur Aufklärung der fabel vom Oran utan; herausgegeben von Dr. C. F. Heusinger.

Beskrivelser over en Flaggermuus henhörende tel Slægten Thiroptera (Spix.) Af. A. Rasch.

P. Belloni Cenomani de Arboribus coniferis, resiniferis, &c.

Histoire d'une larve aquatique du genre Simulium. Par J. E. Planchon.

Commentatio anatomico-physiologica de monstris duplicibus verticibus inter se junctis. Auctore Jo. Car. Leop. Barkow.

Observationes anatomicæ de Orthragorisco mola. Auctore Petrus H. J. Willenberg.

Tabillen über die Vergleichende Geognosie. Ein versuch von Christian Keferstein.

Traité de Taxidermie. Par M. Dupont.

De caloris animalis origine. Auctore Ed. Hochgeladen.

Jac. Chr. Schæffer de Studii Ichthyologici facilio ri ac tutiori methodo.

Dissertatio anatomico-pathologica de mutato vasorum sanguiferorum decursu in Scoliosi et Cyphosi, &c. Auctore W. Vrolik.

Disquisitio Ampullularum Lieber-Künhnh phisico-microscopica. Auctore Romanus Adolph Hedwig.

Dissertatio physico-medica: complectens experimenta varia calorem animalem spectantia. Auctore Arnold Duntze Bremensis.

Beschreibung und Abbildung von 24 Arten kurzschwänzigen Krabben ais Beiträg zur Naturgeschichte des rothen Meeres. Von Dr. E. Rüppell.

Vers solitaires et autres de diverses especes dont il est traité dans le livre de la generation des Vers. (Andry.)

Symbolæ ad Ovi Mammalium historiam ante prægnationem. Scripsit Dr. A. Bernhardt.

Des Fibres élémentaires animales. Par MM. Cherest et Bouvaist, D. M. P.

ɪurs d'ouverture et de cloture du Cours de Zoologie donné dans le Museum
ıl d'histoire naturelle, Ans. 6 et 9. Par M. Lacépéde.
ornelii Verloren commentatio de organis generationis in Molluscis gastepneumonicis.
ment. anat. physiol. sistens disquisitionem an verum organorum diges-
ıserventium discrimen inter animalia herbivora, carnivora, et omnivora
tur. Auctore Jano W. Neergaard.
andeling over de Drentsche Slangen et Adders door Mr. J. Van Lier. 4to.
ıtin Zoologique, publié sous la direction de F. E. Guérin. Nos. 1, 2, 3.
bei Eröffnung der Versammlung deutscher Naturforscher und Aerzte in
ɪerg am 18 Sep. 1829, gehalten von F. Teidemann.
del Dott. Francesc'Orazio Scortegagna sopra le Nummoliti.
ɪsca terrestria et fluviatilia edit. J. Curante C. Porro. 1846.
ldungen zur Schlangenkunde. Von Dr. H. D. Lenz.
ication des Planches de l'ouvrage sur les Papillons d'Europe (par Ernst.)
ame de Genlis. 4to.

November 5*th*, 1850.

Dr. Morton, President, in the Chair.

Dr. Leidy read a communication, intended for publication in the Proceedings, entitled "Descriptions of three Filariæ," which was referred to Drs. Zantzinger, Hallowell, and Morton.

The Curators exhibited a mounted specimen of Lupus gigas, Townsend, being one of the individuals which formed the subject of a paper, read at a late meeting of the Academy, by Dr. Townsend, and published in the last number of the Journal.

November 12*th*.

Dr. Morton, President, in the Chair.

A letter was read from Mr. Edward Wilson, dated Lydstip House, Pembrokeshire, Wales, Oct. 21st, 1850, giving information of several cases of books and specimens of Natural History, which had been shipped from England, and were presented to the Academy by himself and others.

A letter was read from M. Von den Buch, dated Bremen, Sep. 14th, 1850, addressed to the late Dr. Griffith, in relation to exchanges in Conchology. Referred to the Conchological Committee.

November 19*th*.

Dr. Morton, President, in the Chair.

A letter was read from the Royal Society of London, dated Aug. 9th, 1850, acknowledging the reception of Part 4, Vol. 1, New Series of the Journal, and of No. 12, Vol. 5, of the Proceedings.

The Curators exhibited mounted skeletons of Testudo ——, from Java, presented by Mr. Ash, and of Hypsiprymnus cuniculus, from Tasmania, presented by Captain Wm. McMichæl.

Mr. Vaux, from the Publication Committee, announced the publication of Part 1, Vol. 2, New Series of the Journal, which was ready for distribution to subscribers.

November 26*th*.

Dr. Morton, President, in the Chair.

The Committee, to which was referred the following by Dr. Leidy, reported in favor of publication in the Proceedings:

Descriptions of three Filariæ.

By Joseph Leidy, M. D.

1. Filaria *Hominis oris*.—Body white, opaque, linear, thread-like; mouth round, simple; posterior extremity obtuse, furnished with a short, curved, epidermal booklet 1-500th in. in length, by 1-2000th in. in diameter at base.

Length 5 inches 7 lines, greatest breadth 1-66th in.; breadth at mouth 1-250th in.; at posterior extremity 1-80th in.

Remarks.—The description is taken from a single specimen preserved in alcohol, in the collection of the Academy, labelled "obtained from the mouth of a child."

Is it a young individual, or perhaps a male of the Filaria medinensis, or Guinea worm? The latter, as is well known, infests the human body, often growing to an enormous length, several yards or more, in the intertropics of Asia and Africa. It is frequently brought in the body of negro slaves from Africa to America, where no entozoon of the kind has ever been noticed to be parasitic in man as an indigenous production. From some late observations on the course of life of entozoa, helminthologists have been led to suspect that most, and probably all entozoa pass different stages of their existence in different animals. If such be the fact, may the Filaria medinensis not owe its introduction into the human body, from the custom which prevails in those countries, where the worm is found, of using insect food? Insects are well known to be infested with Filariæ, probably more than any other class of animals. In Egypt, Arabia, &c., the locust is eaten; in Guinea, &c., the larger coleoptera; in the raw state, and in this condition Filariæ may often be swallowed, and reach a higher developement of their existence in the human body.

2. Filaria *Canis cordis.*—Body white, opaque, linear, nearly uniform throughout, posteriorly subulate, pointed; mouth simple, round.

Length 10 to 10½ inches, greatest breadth 2-5th of a line, anteriorly 1-6th of a line; half an inch from posterior end, 1-10th of a line.

Remarks.—The description is taken from two individuals preserved in alcohol, in the collection of the Academy, presented by Dr. R. Coates, who obtained them, according to the label upon the bottle, from the parietes of the heart of a dog.

3. Filaria *Boæ constrictoris.*

♀. Body white, cylindrical; integument translucent, longitudinally striated; mouth simple, round; œsophagus cylindrical, opaque white; intestine opalescent, cylindrical, tortuous, corrugated, wider than the œsophagus; anus terminal, round; generative aperture close to the mouth; ovaries two, very long and very tortuous.

Remarks.—The description is taken from two specimens; one 10 inches long, by 4-5ths of a line wide, the other 6½ in. long by 3-5ths of a line wide. In the former the œsophagus is 9 lines long and 1-3d of a line wide, the intestine 13 in. long and 3-5ths of a line wide.

Habitation.—Found in the areolar tissue, in an irregular or tortuous position, between the muscles of the ribs and the integument of a Boa constrictor.

Note.—In the same Boa constrictor, which was dissected by my friend Dr. Hallowell and myself, we found in the right lung 6 females, 4 males, and a very young individual of Pentastomum proboscideum, and in the ureters of the kidneys 26 individuals of Distomum horridum.

ELECTION.

Mr. Richard P. Remington, of Philadelphia, was elected a *Member* of the Academy.

December 3d.

DR. MORTON, President, in the Chair.

ommunication was read from the Minister of Public Works of
, dated Paris, Sept. 5th, 1850, accompanying a number of Vols.
" Journal des Mines," and of the " Annales des Mines," which
en deficient in the series of that Work in the Library of the
my ;—and also asking in return, certain numbers of the Journal
oceedings of this Institution.

tter was read from Professor Nillson of Sweden, dated Lund,
0th, 1850, returning acknowledgments for his election as a Cor-
dent of the Academy, and stating his intention to present a copy of
rk on the Fauna of Scandinavian Vertebrata ; and also offering
cure for the Academy, Zoological specimens of that country, if
le. Referred to the Zoological Committee.

Leidy read a paper entitled " New genera of Vermes," which,
intended for publication in the Proceedings, was referred to Drs.
nger, B. H. Coates and Hallowell.

December 10th.

Vice-President BRIDGES, in the Chair.

Leidy exhibited several molar teeth and fragments of maxillæ
ossil Rhinoceros, from Missouri territory, received from the
onian Institution through Prof. Baird, which indicate a species
nore than half the size of the recent R. indicus. He character-
under the name of R. occidentalis.

Leidy also exhibited drawings, and offered the following remarks
nettling organs of the Hydra :—

e are three different forms of these organs. The first are of comparatively
ize, and are pyriform in shape, measuring about 1-1700ths in. in length,
125ths in. in breadth. They are found principally upon the arms, and
r two thirds of the surface of the body, although they are found upon the
r third also, but few in number. Colorless and transparent, they contain
them an elongated pyramidal body about 1-3400ths in. in length, the apex
h is in contact with, or slightly protrudes from, the projecting extremity
nettling cell ; the base is divided into four lobes and rests upon a prolate
d body which has its other extremity applied to the middle of the concav-
cup-shaped mass of faintly yellowish matter occupying the inferior third
ond of the receptacle. The pyramidal body is described by Corda[*] as
calcareous dart capable of protrusion from the cell, but incorrectly,
en it is forced from its receptacle, it divides into four spine-like
es, which project outward nearly at right angles to the extruded mass.
ervals unoccupied, and the bodies just described within the cell are filled

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[*] Nov. Act. Phys. Med. 1836, p. 301.

with a transparent colorless fluid. When the Hydra brings its arms in contact with its prey, the projecting ends of those nettling cells which touch it appear to adhere to the captured animal, and in the struggles of the latter, a delicate thread from the nettling cell is observed to be attached to the prey which is lengthened in the movements of the latter, entangling its limbs; and if the struggling continues or the prisoner escapes, it will be found to have several of the nettling cells, torn from the Hydra, adhering by the long delicate threads. In the detachment of the nettling cells, after considerable elongation of the thread, the whole of the interior mechanism is first withdrawn from the cell and adheres to its projecting end, as a cylindrical mass, faintly outlined, with a pyramidal summit from which proceeds the thread, and from the upper third of its sides, rise outwardly like springs, nearly at right angles to it, the four spinous processes before mentioned. The nettling cell itself, appears darkly outlined from the thickness of its wall, and is much narrower than in the ordinary condition from the loss of a considerable part of its contents, and within is nothing else but a clear fluid. The traction continuing, the whole cell and appurtenances become detached from the Hydra. The thread which originated in the interior of the cell appears to be of a viscid character, for if any of these cells of the arms of the Hydra come in contact with its own body, they adhere with such tenacity, that the former can only be detached, at the expense of the loss of several of the nettling cells. From the detached cells often being found attached to the Hydra itself by the long threads, some observers, as Ehrenberg,* have considered that they were organs, which the animal threw out from itself like anchors.

The second form of nettling organs, are found arranged in more or less regular circles around the first or largest form, usually nine to fourteen in a circle. They are transparent, pyriform, about 1-3400th in. in length by 1-5666th in. in breadth, and have projecting from the prominent extremity a cilium about 1-875th in. in length. These cells are described by Corda as containing a thick walled sac, adhering to the outer cell at the base of the cilium. According to my observations, the appearance of an inner sac arises from a contained thread which forms a double spiral, one end of which forms the cilium projecting from the nettling cell.

The third form of nettling organs, are found in greatest abundance about the head of the animal, but also exist upon the arms, particularly at the lower part, and upon the surface of the body generally. This form appears never to have been before noticed. They are oblong, transparent cells, about 1-2125th in. long by 1-5666th in. broad, and contain within them a spiral thread, more delicate than in the second form of cells, and have a greater number of turns which take a direction transversely to the length of the cell. They resemble very much in their appearance one of the forms of nettling cells of Corynactis, figured by Allman in the 17th vol. of the Annals of Natural History, Pl. 11, fig. 4. I have never been able to see the threads prolonged externally, on account of their minuteness, in contact with the prey of the Hydra; but by pressure and the continued endosmosis of water I have detected them protruded in this as well as the second form described.

All the forms of nettling organs are placed within especial organic cells, adherg by the more prominent extremity of the organ to that part of the interior pa- ietes of the cell, corresponding to the free surface of the animal upon which they re placed. Their developement is special from the granular contents of the or- anic cells and not from the nucleus, for in the first or largest form of nettling rgans, in their developement upon a bud of the Hydra, I have been able to detect ne within an organic cell, and a nucleolated nucleus at its side.

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*See Arch. für Naturgesch. 1842, p. 71.

The foregoing observations have been made in frequent efforts to detect some orm of cell within the head of the Hydra which would be different from the gene- al structure of the body, and probably characterize a nervous system, but although have examined the animal in different menstrua under a variety of circum- tances, I have never been able to discover anything which could be referred to a ervous structure.

December 17*th.*

Dr. MORTON, President, in the Chair.

A communication was read from the American Philosophical Society, dated Dec. 7th, 1850, acknowledging the reception of Part 1, Vol. 2, of the Journal of the Academy.

A communication was read from Dr. T. C. Henry, dated Albany, Dec. 2d, 1850, in reference to two fishes from Oswego Lake, lately presented by him to the Academy, and describing one of them as a new species under the name of *Centrarchus Oswego.* On motion, the communication was referred to a committee consisting of Mr. Cassin, Dr. Fisher and Dr. Leidy.

Dr. Leidy presented for the inspection of the members, fragments of fossil mammalian remains, from Missouri Territory, received from the Smithsonian Institution, through Prof. Baird, consisting of portions of crania, maxillæ and teeth, which he characterized under the names of Rhinoceros nebraskensis—a species not much larger than a common hog,—Palæotherium Bairdii, Merycoidodon Culbertsonii, and Agriochœrus antiquus.

1. RHINOCEROS NEBRASKENSIS.—A species founded upon a great portion of the face, containing all the superior molar teeth; an inferior maxilla with six molars; and three superior, apparently deciduous molars. It is about the same size as the R. minutus of Cuvier.

Length of line of seven superior molars, ...	4 7-10 inches.
" " six inferior "	4 2-10 "
Breadth of jaws from the first superior true molar teeth of one side to the other, ...	3 8-10 "

2. AGRIOCHŒRUS, *n. g.*—Founded upon a great portion of the face and inferior maxilla, containing six molar teeth on each side, and the posterior two molars of both sides superiorly of another individual. The posterior molars of this genus resemble in general form those of Merycopotamus, *Falk.*, & *Caut.*, and are about one-third smaller, but the outer demicones are not separated to the base from each other like the former, but are combined by a rounded column as in Hyopotamus bovinus.

The fourth premolar has four demicones, but the internal posterior one is rudimentary. The third has two demicones; the external large, the internal small. The second form, but a single cusp. The inferior true molars in general form resemble those of Merycoidodon, but may at a glance be distinguished by the posterior edge of the postero-external demicone bifurcating before it terminates, sending one arm to join the internal angle of the posterior internal demicone; the other to join its posterior external face about the centre.

Length of range of superior six molars, ...	3 in. 1 line.
" " inferior posterior five molars, . . .	3 " 1 "
Breadth of face from one superior posterior molar to the other,	2 " 10 "

The species he called A. antiquus.

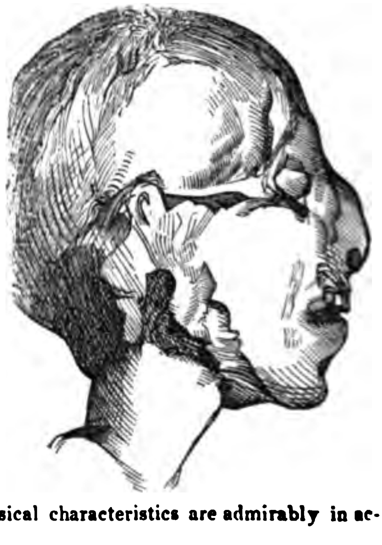
3. PALÆOTHERIUM.—Remains of this genus have been previously discovered in this country. Dr. Prout in Silliman's Journal, Vol. 3, n. s., p. 248, describes a fragment of an inferior maxilla of a species larger than the P. magnum of Cuvier. The species, for distinction, may be named P. Proutii.

A second species was founded upon the cranium and a portion of the face containing the true molars; and the six superior and inferior molars of both sides of another individual. This species is about two-thirds the size of P. crassum. The arrangement of the superior molars is very like that of Paleotherium Hippoides.

Length of range of seven superior molars, ...	2 8-10 inches.
" " seven inferior "	3 "
Breadth of face on line with posterior superior molars, .	2¼ "

This second species Dr. L. named P. Bairdii, in honor of Prof. S. F. Baird, Curator of the Smithsonian Institution.

Dr. Morton commenced a series of remarks on the embalmed heads of Man, and the inferior animals from the Egyptian Catacombs; previously to which, he exhibited a drawing made from one of the former, which delineated with truthful precision the peculiar characteristics of the Egyptian conformation. The accompanying cut has been made from the drawing:



He called the attention of the Society to the fact, that the mummied body unwrapped by Mr. Gliddon, in Boston, during the past year, is unequivocally identified with the reign of Osorkon III, by finding the *cartouche* or oval of that King stamped in four different places on a leather cross, placed diagonally on the thorax in front.

Osorkon belongs to the XXII Dynasty, and his reign is placed between the years 895 and 905 B. C.; consequently the present individual, who was Theban, dates back about 2750 years. The physical characteristics are admirably in accordance with those of the pure Egyptian race, as seen in the somewhat receding forehead, the gently arched nose, slightly retracted chin, and general delicacy of form and proportion of the facial bones. The hair was destroyed by the bituminizing process, which has been performed in such excess as to efface the expression of the soft parts, and to render it impossible to measure the facial angle, or the internal capacity of the cranium.

There are one hundred and thirty embalmed Egyptian heads in the Collection of the Academy, but none of them can be even proximately dated; whence the great interest that attaches to the present example.

Two Egyptian heads were then unwrapped in the presence of the members. They were both from Thebes, where they were procured by A. C. Harris, Esq. of Alexandria, sent by him to Mr. Gliddon, and placed by the latter gentleman in the collection of Dr. Morton.

One of these heads, was of a man of 80 years, of Pelasgic or Græco-Egyptian form, with remarkably fine proportions and expression, and very fine hair, which the embalming process had changed, as it always does, from a black to a dark brown color.

The second head was that of a female, which was unfortunately so broken as to leave nothing but the cranial portion, and a profusion of the long, fine, curling hair, which was one of the characteristics of the *autocthones* of the Nile.

December 24th.

Dr. Morton, President, in the Chair.

A letter was read from Dr. John Evans, dated St. Louis, Mo., Dec. 9th, 1850, acknowledging the receipt of his notice of election, as a Correspondent.

Also one from the New York State Library, dated Albany, Dec. 20th, 1850, acknowledging the reception of Part 1, Vol. 2, New Series, of the Journal.

Also one of the same import from the Smithsonian Institution, dated Washington, Dec. 3d, 1850.

Mr. Cassin read a paper intended for publication in the Proceedings, entitled "Notice of an American species of Duck, hitherto regarded as identical with the Oidemia fusca, Linn." Referred to Drs. Zantzinger, Townsend, and Woodhouse.

Dr. Morton made some additional remarks on embalmed Egyptian heads.

December 31st.

Dr. Morton, President, in the Chair.

The committee to which was referred the following paper by Dr. Leidy, reported in favor of publication in the Proceedings.

Description of new genera of Vermes.

By Joseph Leidy, M. D.

1. **Peloscolex.** n.g. Setæ in two rows, 6 to 10 in each fasciculus; podal hooks in two rows, in twos or threes, bifurcated at the free extremity; each annulation furnished with a circle of prominent tubercles, with numerous smaller ones. Upper lip hardly projecting. Girdle not prominent. Blood red.

1. **Peloscolex Variegatus.**—Body cylindrical, posteriorly obtuse, anteriorly sub-acute. Setæ simple, usually 10 in each fasciculus anterior to the girdle, absent in the posterior 22 annulations. Podal hooks anteriorly in threes, divergent, strong, sigmoid, bifurcated at the extremity; posteriorly in twos, one rudimentary. Each annulation furnished with a circlet of elevated, rounded tubercles, 1.800th in. in heighth, and numerous smaller ones, also arranged in transverse circles. Anterior, 3 or 4 annulations reddish; after these 25 are deep black, except the tenth or girdle, which is broad and brownish; posterior annulations red or brown. Upper lip so little projecting that the mouth appears almost terminal, furnished with short, stiff hairs. Whole number of annulations 50.

Length 4 lines; length of setæ, 1-133d in. to 1-80th in.; length of podal hooks 1-400th in. to 1-178th in.

Habitation.—Found in the spring of the year in the ferruginous mud at the bottom of springs impregnated with iron, near Philadelphia.

2. **Chaetogaster,** Baër:

Baër, *Nova acta nat. Curios.* 1827, *p.* 614; Ehrenberg, *Symb. Phys.*, 1831.

Nais diaphina and Nais diastropha. Gruithuisen. *Nov. act. nat. cur.* 1828, *p.* 407.

Body cylindrical, elongate; mouth inferior, large, triangular; anus terminal. Podal spines in transverse fasciculi, inferior, simple; the first pair of fasciculi close to the mouth; the second distant. Intestine straight, capacious. Eyes none. Blood white. Increasing by division. *Leidy.*

2. **Chaetogaster gulosus.**—Body whitish, translucent; posteriorly obtuse, ciliated with long hairs; mouth infero-terminal, large, triangular, simple; upper lip digitiform, ciliated. Œsophagus short, narrow; first stomach long, cylindrical, transparent; 2nd stomach large, oblong; intestine straight, capacious. Podal spines in pairs of fasciculi of 5 or 6 each, simple, divergent, curved backward near the free end, retractile; first pair just posterior to each side of the mouth inferiorly; second pair removed far back. Usually found in the state of division; commonly 2 to 4 subdivisions.

First subdivision 1-24th in.; furnished with 6 pairs of fasciculi of podal spines, the second pair one half of the length of the subdivision from the first or oral pair. Second subdivision 1-100th in.; third, 1-66th in.; fourth 1-100th in. Each of these latter furnished with 4 fasciculi of podal spines.

Whole length, 1 line; will contract to half a line; breadth, 1-140th in.; mouth, when open, 1-250th in.; length of podal spines, 1-133d in.

Habitation and Remarks.—Found abundantly with Hydra fusca, etc., in the water of marshes in the vicinity of Philadelphia. This worm is very active in its movements and very rapacious. Creeping upon bodies in the water, it rapidly elongates the anterior part of its body in various directions, and swallows great numbers of the smaller infusoria. In turn, it is much preyed upon by the

Hydra fusca. When the anterior part of the body is elongated in search of food, the mouth is much distended and terminal.

3. **RHYNCHOSCOLEX**, n. g.—Body cylindical, soft, naked, transversely and finely striated, vibrillated, anteriorly elongated into a proboscidiform appendage. Mouth inferior; anus terminal. Intestine simple, straight. Eyes none.

3. **RHYNCHOSCOLEX SIMPLEX**.—Yellowish white, opaque, anteriorly abruptly attenuated into a long, cylindrical clavate, proboscidiform appendage: anteriorly abruptly narrowed, obtusely truncate or rounded. Proboscis presenting longitudinal and numerous transverse marks. Mouth inferior, at the base of the latter appendage. Intestine straight and capacious.

Length, 2 to 3 lines; breadth, 1-6th of a line; proboscis 1-133d in. long, but may lengthen to 1-60th in.

Habitation and Remarks.—A small wriggling worm found among yellowish fragments of vegetable matters and confervæ at the bottom of clear brooks in the vicinity of Philadelphia. Under a very little pressure it undergoes rapid disintegration into globular masses: (cells of the structure distended by endosmosis?)

1. **EMEA**.[*]—Body elongated, plano-convex, soft, proteiform, naked, covered with minute vibrillæ. Alimentary canal simple, tortuous, furnished with a gizzard containing a dental apparatus; mouth and anus terminal. Eyes two or three, on each side of the head.

1. **EMEA RUBRA**.—Elongated, compressed, contracting irregularly, broadest posteriorly, anteriorly obtuse, yellowish flesh colored. Head semi-oval, neck projecting laterally. Eyes, two or three black spots placed in a line behind one another on each side of the head and neck. Mouth simple, opening into a narrow pharynx; intestine cylindrical, narrowed posteriorly, furnished with a small, round, muscular stomach, containing a corneous dental apparatus at its entrance. Generative apparatus consisting of two very tortuous and capacious tubes, passing the whole length of the body on each side of the alimentary canal.

Length from 3 to 10 lines; breadth 1-5th to 1-3d of a line.

Habitation and Remarks.—Found in marshes in the vicinity of Philadelphia, creeping upon dead vegetable substances, or upon the ground. When touched or irritated, it secretes a large quantity of very tenacious mucous. Under slight pressure it will voluntarily evert more than one half of the intestinal canal through the mouth, and upon removal of the pressure, after some minutes, will again withdraw it, and apparently without injury having been sustained, as the animal lives for days afterwards in its usual circumstances. The interior of the body, in the intervals of the viscera, is filled with discoidal corpuscles, as in Nais, etc. The interior of the intestine is every where furnished with nutritive villoid appendages.

2. **ANORTHA**.[†]—Body sub-compressed, soft, naked, vibrillated, inarticulate. Alimentary canal simple, straight, alternately contracted and dilated. Mouth and anus terminal, simple, indistinct. Eyes none.

2. **ANORTHA GRACILIS**.—White, opalescent, very contractile, moniliform

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[*] ἐμέω, from the disposition the animal has to protrude or vomit forth the anterior part of the intestine.

[†] ἀνορθόω, from the erect position of the animal.

from an alternation of contraction and dilatation, corresponding usually to ten segments, into which the animal may subdivide, but more or less disappearing in elongation of the body, becoming more apparent by wrinkling in shortening of the body; anteriorly semi-ovate, sub-acute; posteriorly elongated, cylindroid, obtusely rounded. Apparent segments panduriform, furnished each posteriorly with a clear globular nucleolated nucleus. Intestine variable in capacity, usually dilated in the anterior dilatation of each apparent segment, and much contracted in the intervals.

Length from 1-2 to 2 lines, shortening to 1 or 1-4 a line; breadth, when elongated, from 1-400th to 1-300th in.; when shortened from 1-300th in. to 1-2 of a line.

Habitation and Remarks.—Found in the same situation as the preceding, creeping planaria-like upon different substances, or most frequently holding a vertical position in the water, apparently without movement, but retaining their position by means of the actively moving vibrillæ, which are comparatively larger than in the preceding worms. They appear to feed upon vegetable particles brought to the mouth by means of the currents produced by vibrillæ. The intestine is usually empty, except at the dilated portions, where it is yellowish or greenish, from granular matters contained within. The whole structure of the animal is exceedingly simple, composed of nucleolated, granular corpuscles, those forming the exterior of the body being furnished with vibrillæ. Under slight pressure, these corpuscles undergo separation from one another, and become globular by endosmosis; in this state they measure from the 1-7000th in. to the 1-2800th in. The nucleoli are globular, shining, and measure the 1-900th in. in diameter. The exterior vibrillated corpuscles, after separation from the body, often move about for some seconds. The vibrillæ measure about 1-3500th in. long. Each segment of the animal's body, at its posterior part, contains a globular, transparent nucleus, measuring the 1-2333d in. in diameter, with a globular, refractile nucleolus the 1-7000th in. in diameter. This latter body, with the form of the apparent segments, makes the animal resemble a row of gregarinæ attached together.

The Committee on the following paper by Mr. Cassin, read Dec. 24th, 1850, reported in favor of publication in the Proceedings.

Notice of an American species of Duck, hitherto regarded as identical with the Oidemia fusca, (Linn.)

By John Cassin.

Oidemia velvetina, nobis. Audubon, Birds of Am. pl. 247.

Form.— ♂ Generally similar to that of O. fusca, but is rather larger, bill longer and more slender, with the protuberance at the base of the upper mandible more prominent and more extended. Space between the nostril and the edge of the upper mandible much narrower in the present species.

Upon the protuberance at the base of the bill in this species, the velvet like plumage of the front terminates in a well defined point, as represented in the figure of the female in Aud. pl. 247, while in O. fusca this termination is abruptly sub-rounded as in both figures in Selby, Ill. pl. 67, though I have never seen a specimen in which this rounded character is so distinctly marked as there represented.

Color.—♂ Entirely black, except a spot under the eye and the exposed portion of the secondaries, which are white. The white spot under the eye is larger in the species now described.

Hab.—Atlantic coast of North America.

Obs.—The two species here alluded to are easily distinguished from each other when examined together, and both may possibly be found in America and Europe. The pointed extension of the velvety plumage upon the upper mandible is the most ready character by which the species now described may be known. It appears to be the bird figured by both Wilson and Audubon as the Anas fusca, Linn.

Specimens of both species are in the collection of this Society; the specimen which led to their examination was shot at Egg Harbor. N. J., and presented recently by our fellow member, E. J. Lewis, M. D.

The annual Report of the Treasurer was read and referred to the Auditors.

The Report of the Librarian was read, as follows:—

REPORT
OF THE LIBRARIAN
For the year 1850.

The additions to the Library, of all descriptions, during the present year amount to 2965, this number being more than double that of 1849, and far exceeding the ratio of any previous year since 1834. The subjoined table has been prepared in the ordinary form, presenting the number of volumes, pamphlets, and works in parts or numbers, in each subject.

Subject.	Number of Volumes.	Periodicals in parts, numbers &c. &c.	Pamphlets.	Subject	Number of Volumes.	Periodicals in parts, numbers &c. &c.	Pamphlets.
General Natural History,	151	40	36	Brought over,	744	244	395
Mammalogy,	12	1	14	Physical Sci. and Chemistry,	10	1	10
Ornithology,	78	35	27	Medicine,	3		15
Entomology and Crustacea,	191	23	56	Trans. and Proceed. of Soc., Journals, Annals, &c., &c.,	622	334	8
Ichthyology and Herpetology,	9	4	19	Voyages and Travels,	147	136	7
Conchology and Helminthology,	48	56	55	Geography,	26		2
Geology and Mineralogy,	105	21	57	Dictionaries of Arts and Sci.	110		
Botany,	9	9	7	Bibliography,	23		17
Anatomy and Physiology.	141	55	127	Miscellaneous,	34		77
	744	244	395		1719	715	531

Of the whole number 2965, there have been contributed by authors 74; by editors 18; by members, correspondents, and others 109; by societies and corporations 113; by Dr. Wilson 2493; by Mr. Edward Wilson, of Wales, 153; by the U. S. Treasury Department 5 (charts.)

The extensive contributions of Dr. Wilson to the Library, including those of the present and previous years, are now the property of the Society, on the sole condition that they are not to be loaned from the Hall. The propriety of this restriction is unhesitatingly acknowledged by all connected with the institution. It is also in entire accordance with the views of the earlier members of the Society, among them Mr. Maclure, who was decidedly in favor "of making the Library a Reading Room, with all possible facilities for those persons who wish to consult the books." I quote from the excellent report of the Library committee presented in 1836. These facilities are now certainly all that can be desired, and we may even hope that the restriction will be extended by an act of the Society, to *all the books* contained in the Library, no exceptions being made as at present.

Among the many valuable additions this year, may be mentioned the following:—D'Orbigny's Palæontologie Française, nearly complete, from Dr. Morton; Blainville's Ostéographie as far as published; Demidoff's Voyage dans la Russie Meridionale; Paxton's Magazine of Botany, Vols. 1 to 17: Memoirs of the Royal Society of Lille, 26 vols.; Commentationes Soc. Reg. Sci. Gottingensis, 32 vols.; Comptes Rendus, vols. 1 to 23, (completing the series in the Library;) Annales des Sciences Nat., 3d series, 20 vols.; Miscellanea curiosa, Ephemerides, Acta Physico-medica, and Nova Acta Acad. Cæsar, Leopold-Carolinæ Nat. Curiosorum, about 80 vols.; Commercium Litterarium, 15 vols.; Transactions of several Berlin Societies, 39 vols.; Annales Acad. Rheno-Trajectinæ, 25 vols.; Memoires, Annales, Nouv. Annales, et Archives du Museum d'Hist. Nat. de Paris, 21 vols. (completing the Academy's series;) Commentarii de Rebus, 44 vols.; Dictionnaire des Sci. Nat. 75 vols.; Trans. of Royal Irish Academy, vols. 1 to 13; of the Royal Asiatic Society, vols. 1 to 10; Journal of the Royal Geographical Society, vols. 1 to 19; Brewster's Edinburgh Journal of Science, and Brande's do. 32 vols.; Dict. classique d'Hist. nat. 17 vols.; Shaw's General Zoology, 14 vols.; for all of which we are indebted to the untiring liberality of Dr. Wilson.

Mr. Edward Wilson, of Pembrokeshire, Wales, the brother of our esteemed fellow-member, has been a large contributor to the Library during the present year. He has also been instrumental in creating an interest in the Library with other friends of our institution abroad, and among them a number of naturalists and men of science, from whom we have already derived numerous highly acceptable contributions.

Through exchanges with Societies, we continue to receive considerable accessions to the Journal department. To the "Ecole des Mines," of Paris, we are particularly indebted this year, for eighteen volumes of the Journal and Annales des Mines. Our series of that valuable periodical is now complete, with the exception of three or four volumes. The exchange list, however, is not yet as desirable as we hope it will be, when our relations with foreign scientific bodies are more extended, and placed upon a better and more permanent footing than at present.

The extraordinary rapidity with which the Library of our favored institution has advanced of late years, has astonished and gratified all connected with it. In the last annual report it was stated that, in consequence of its great increase, it had become necessary to extend the accommodations for books into the adjoining room, and that arrangements were then being made for that purpose. The alterations were soon afterwards completed, and the apartment has been fitted up in a tasteful and commodious manner. The cases on the floor contain the various Transactions, Journals, and similar works, and those on the gallery are entirely occupied with the Dictionaries of Arts and Sciences, and the valuable collection of works on Antiquities and the Fine Arts.

he Library has increased from about 7000 volumes in 1836, to upwards of 00 volumes in 1850, a period of about fourteen years, nearly all of which have n the gratuitous contributions of individuals or societies, very few having been ained by purchase, or through public sources. The annexed statement shows number of volumes in each department, ascertained by actual enumeration hin the last few days.

Natural Sciences,	3213 vols.
Anatomy and Physiology,	286 "
Voyages and Travels,	766 "
History and Geography,	501 "
Trans. of Soc., Journals, Memoirs &c.,	1944 "
Dictionaries of Arts and Sciences,	530 "
Maps in volumes,	22 "
Chemistry and Physical Science,	307 "
Historical documents of all descriptions,	1857 "
Antiquities and the Fine Arts,	428 "
Miscellaneous,	1354 "
In the Hall, but not yet presented,	350 "
Works in parts or numbers not yet completed, and pamphlets, when bound, forming about	500 "
Total,	12,057

espectfully submitted by

Wm. S. Zantzinger,
all of the Academy, Dec. 31, 1850. *Librarian.*

he following report was read by Dr. Leidy, Chairman of the rators:—

REPORT
OF THE CURATORS
For 1850.

he museum of the Academy has continued to increase during the year just ing, with the vigor which characterized it the preceding two years. Several he departments have received very large accessions; others, which from their parative state of completeness preclude any extensive contributions, have reed donations of value and rarity; and all have had important additions.

he arrangement of the Cabinet of the Academy devolves upon a few members, being able to devote but a portion of their time to the purpose, from the extent he collection it must be necessarily slow. One of our most important aids in respect we lost last summer: I allude to our much lamented fellow-member Vice President, Dr. R. E. Griffith, who was steadily engaged, during his monts of leisure, in arranging the conchological collection, to which he had so exsively and liberally contributed.

he Academy has also been unfortunate this year in the loss of another of its ortant members, Dr. Gambel, one of our best and most enterprising ornitholts, who, when at home, frequently lent his valuable assistance in arranging ornithological collection.

All objects of the museum of a destructible character are in a good state of preservation, and appear to be well protected from the attacks of Dermestes and Ptinus by the vapor of ether, which has been lately introduced into use for this purpose by Dr. Wilson.

The increase in the cabinet during this year, will be briefly noticed under the head of each respective department.

Mammalia.—In this class the Academy has been greatly enriched by the addition of the collection of Dr. J. K. Townsend, made by himself in the Rocky Mountains and Oregon, consisting of 37 species, 56 specimens, in skin, in a good state of preservation. These were liberally presented to the Society by Dr. Townsend. Most of them are the specimens from which the species were originally described, and many of them are exceedingly rare in natural history collections, and a few are unique.* Among them are two specimens of the gigantic wolf of America, *Lupus gigas*, lately described by Dr. Townsend in the Journal of the Academy.

We have also received skins of twenty species of mammalia,† of Europe, Asia, Africa, and Australia, from W. E. Strickland, Esq., of England, through Dr. Wilson.

Another addition of great value was made by Dr. T. B. Wilson, consisting of one hundred specimens from the collection of the Prince of Canino, C. L. Bonaparte, being the originals of those species figured and described in the Fauna Italica.

We are also indebted to Capt. W. McMichael for 7 species, 8 specimens, of animals from Van Dieman's Land.

Besides the above there were presented to the Society ten species from various sources.

Aves.—We have received during the year 71 bird skins, of which 51 are from Van Dieman's Land, presented by Capt. W. McMichael; 10 from China, presented by Capt. John Land; the remainder from various localities, presented by Dr. E. J. Lewis, and others.

The valuable Des Murs collection of Bird's eggs, containing 1281 species, mentioned in the last report of the Curators as a deposit, has since been presented to the Academy by Dr. Wilson.

To Mr. Samuel Ashmead we are also indebted for the donation of 38 species, 48 specimens of American bird's eggs.

There were also presented by various individuals, principally members of the Society, 15 species of nests, and 23 of eggs, from different localities.

Reptilia.— Of reptiles there have been received 65 species, 80 specimens, besides numerous American duplicates, principally from Dr. McCartee, of Ningpo, China; Capt. John Land; Mr. Sandwith Drinker, of Hong Kong, China; and Mr. Ashmead.

Pisces.—In ichthyology the cabinet has received, rather unexpectedly, a large and very valuable collection, presented by Dr. T.B. Wilson, consisting of 767 bottles containing fishes in alcohol, and 177 dried specimens of the latter, formerly belonging to Prince C. L. Bonaparte, and being the originals of the descriptions and illustrations of the Fauna Italica.

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* For list, see Proceedings for January and February, 1850, p. 13.

† Ib. March and April, 1850, p. 37.

From other persons we have received eleven species of fishes, principally American.

Mollusca.—In this department there have been presented 107 species of shells, from various localities, principally by Mr. Ed. Verreaux, of Paris, Dr. McCartee, of China, and Messrs. E. T. and Chas. W. Wilson.

Insecta.—A fine collection of Brazilian insects, consisting of 484 species, 981 specimens, has been added to our cabinet through the liberality of Henry Bond Dewey, Esq., of Para, Brazil, through Dr. Henry Bond, of this city.

To Dr. McCartee, also, we are indebted for the gift of 120 species, 216 specimens, of Chinese insects. Other collections have also been received, but without definite number, in exchange or by donation, principally from Drs. Heerman, Townsend, and Watson.

The collection of insects of the Academy is arranged in boxes in the form of large quarto volumes, with glass on the two sides, so as to permit the objects to be viewed from above and below without disturbance. The Lepidoptera now arranged amount, to 979 species, 1692 specimens.

Crustacea, Myriapoda, and Arachnida.—A large collection of Crustacea has been presented to the Academy by Dr. Wilson, consisting of 381 species, 749 specimens, from all parts of the world.

There have been received, also, nine species from different persons.

Ten Spiders and three Myriapods were presented by Dr. McCartee, of Ningpo.

Echinodermata.—Of Echini and star fishes we have received 21 species, 41 specimens, chiefly from Mr. Edward Wilson, and Messrs. Harwick and Argent, of London.

Comparative Anatomy.—In this department the additions have been unusually large and valuable, as follows: 1st. A large series of articulated skeletons of birds, 165 species; 52 sterna, 10 crania, and 3 other anatomical pieces of birds, purchased in Paris by Mr. Edward Wilson, and presented by Dr. Wilson;* 2d. 53 sterna of birds, presented by M. De la Berge; 3d. 16 skeletons of birds, presented by Mr. Goadby, of London; 4th. 5 skeletons, 3 crania, and 3 sterna, of birds, from Messrs. Verreaux and Lambert, and Dr. Blanding; 5th. 2 skeletons and 3 crania of mammals, presented by Drs. Blanding and Johnson, and Mr. Schafhirt; 6th. a deposite of 26 human and other mammalian crania, from Dr. Morton.

Botany.—The herbarium has been increased by the addition of 43 species of Fungi, 46 Musci and Hepatici, 29 Lichenes, and 13 Phanerogamia from South Carolina, presented by H. W. Ravenel; a collection of plants from Madeira and the adjoining islands, presented by Purser Henry Etting, U. S. N., through Dr. Hays; seeds of 150 indigenous plants of New South Wales, presented by the Royal Society of Van Dieman's Land; and 7 other botanical specimens, presented by Mr. Kilvington, Capt. McMichael, Dr. B. H. Coates, and others.

Palaeontology.—Our Cabinet of organic remains has been much enriched by a collection of 88 specimens of bones of different species of Dinornis and Palapteryx obtained in New Zealand by Walter Mantell, Esq., of London, and presented to the Society by Dr. Wilson. Among these relics may be mentioned one of interest, being a complete foot of Dinornis giganteus.

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* Proc. Jan. and Feb., 1850, p. 13.

Another collection of great interest, presented to the Academy by Dr. Joel Y. Schelly, of Hereford, Berks county, Pennsylvania, consists of 58 fragments of enaliosaurian bones in a matrix of hard conglomerate, probably belonging to the newer red sandstone formation, found in upper Milford, Lehigh co., Penna.

We have also received 255 species, over 300 specimens, of fossil shells of different formations, of France, from Mr. Ed. Verreaux, of Paris, through Dr. Wilson.

Besides the foregoing, a number of other fossils were presented, chiefly by Mr. Joseph Culbertson, of Carlisle, Mr. Ogden, of New Jersey, Mr. Moss, and Dr. Budd.

Mineralogy.—137 specimens of minerals have been presented, among which may be particularly mentioned, a fine series of specimens of native gold from California, presented by Dr. Heerman, and some fine specimens of gold ores from Georgia and Virginia, and cinnabar from California, presented by Dr. J. B. McClellan. The others were presented by Mr. Moss, Hough, of Somerville, N. Y., and others.

Two fine deposites of minerals consist of a specimen of Fluor Spar weighing 23 lbs., from Jefferson county, N. Y., from Mr. Vaux, and a beautiful specimen of native Silver, of Peru, from Dr. Elwyn.

All of which is respectfully submitted by JOSEPH LEIDY,
Chairman of Curators.

The Society then proceeded to an election for officers for the ensuing year, when the following were chosen :—

President, ...	SAMUEL GEORGE MORTON, M. D.
Vice Presidents, . . .	J Price Wetherill, Robert Bridges, M. D.
Corresponding Secretary, .	John Cassin,
Recording Secretary, . .	Samuel Powel,
Treasurer, ...	George W. Carpenter,
Librarian, ...	Wm. S. Zantzinger, M. D.
Curators, ...	Joseph Leidy, M. D. Wm. S. Vaux, Samuel Ashmead. John Cassin,
Auditors, ...	Wm. S. Vaux, Robert Pearsall, Samuel Ashmead,
Publication Committee. .	Wm. S. Vaux, S. G. Morton, Thomas B. Wilson, Robert Bridges, Samuel Powel.

DONATIONS TO MUSEUM

In November and December, 1850.

November 5th.

Amblyopsis spelæus, and Astacus pellucidus, from the Mammoth Cave, Kentucky. Presented by Prof. G. B. Wood.

Fruit of Sorghum ——— ? raised from seed, said to have been taken from the hand of an Egyptian mummy: also fruit of Magnolia tripetala. From Dr. B. H. Coates.

Two eggs of Birds from Nova Scotia. From Mr. C. Gullis.

November 12th.

Four large fragments of fossil Cetacean Bones, from the Marl, Swedesboro, N. J. Presented by Mr. David Ogden, of Swedesboro.

Oidemia fusca, from Cape May. From Dr. E. J. Lewis.

Ateles beelzebub, (recent specimen.) From Dr. G. Watson.

December 3d.

Colymbus glacialis, from Egg Harbor. From Dr. E. J. Lewis.

Cinnabar from New Almeden, California: Gold, with Quartz, from Georgia: two specimens of Gold ore from Virginia. Presented by Dr. J. H. B. McClellan.

Salmo otsego, from Otsego Lake, N. Y., and Centrarchus Oswego, from Oswego Lake, N. Y. From T. C. Henry, M. D., of Albany.

Mygale ——— ? from Texas. Presented by Dr. C. D. Meigs.

December 10th.

Mounted specimens of Mus Barbarus, male, female and young, from Algiers; Mus sylvaticus, ♂ from France, Mustela vulgaris, ♀, and M. foina, very young, from France, Perdix cinerea, L. and P. rubra, Tem., from France; also Carduelis elegans, in skin. Presented by M. Jules Verreaux, of Paris.

Sixteen species (27 specimens) of Echinodermata from the Mauritius, Cape of Good Hope, and Mediterranean. From Mr. Edward Wilson, of Pembrokeshire, Wales.

Chlorastrolite, from Lake Superior. From Frederick Taylor, Esq., of England.

Three hundred and eighty-one species (749 specimens) of Crustacea, from numerous localities, (not previously contained in the collection of the Academy.) Presented by Dr. T. B. Wilson.

Palinurus ——— ? and specimens of the wood, bark, and leaves of the Sassa tree, from Liberia. From Mr. Wm. Procter, Jr., of Philadelphia.

Two specimens of Lithodomus lithophagus, from Florida Reef. Presented by Major Linnard, U. S. Topog. Eng., through Dr. Townsend.

December 24th.

Mounted specimen of Hæmatopus astragulus, from New Jersey. Presented by Dr. E. J. Lewis.

DONATIONS TO LIBRARY

In November and December, 1850.

November 5th.

Supplementary observations on the structure of the Belemnite and Belemnoteuthis. By G. A. Mantell. From the author.

On the Pelorosaurus, an undescribed gigantic reptile from the strata of Tilgate Forest, in Sussex, and on a dorsal spine of the Hylæosaurus, from the same. By G. A. Mantell. From the author.

Indicis generum Malacozoorum primordia. Conscripsit A. N. Herrmannsen. No. 11. From Mrs. L. W. Say.

Brasilien. Nachträge, Berichtgungen und Zusätze zu der Beschreibung meiner Reise im östlichen Brasilien von Max. Prinz zu Wied. From the author.

Dr. Wilson presented the following on the usual condition:—

Faune méridionale, ou description de tous les animaux vertébrés qui se rencontrent toute l'annèe, ou qui ne sont que de passage dans la plus grande partie du midi de la France. Par J. Crespon. 2 vols. 8vo.

The London Athenæum for August, 1850.

Almanach du Chasseur de Papillons et de tous les Insectes.

Procédés Gannal mis a la portée de toute le mond. Embaumement appliqué à la conservation des Oiseaux, quadrupeds, &c.

Catalogus Avium et Mammalium quæ habitant in regionibus Europæ positis inter gradum 46° 57½ lat. Septent. et 35—55 long. a Ferro. (C. Tyzenhauz.)

Observations sur les Conferves en general et sur plusieurs infusoires. Par M. Paul Laurent.

Journal of the Franklin Institute. Vol. 20. 3d series. No. 4.

Preis verzeichness Ausländischer Konchylien welche einzeln verkauft werden bei dem "Zoologischen Museum der Univer. Heidelberg." No. 4.

Sur l'ancienne abondance des baleines, des phoques et des dauphins dans la Meditterranée et dans la Mer Rouge.

Observations critiques sur un memoire de M. Alcide D'Orbigny intitulé. "Considerations sur la station normale comparative des animaux mollusques bivalves." Par G. P. Deshayes.

Méthodes épouvées avec lesquelles on parvient facilement et sans maitre a connaitre les caractéres propres a chaque famille naturelle indigéne. Par F. J. Montandon.

Revue et Magasin de Zoologie. No. 6, 1850.

Archiv für Naturgeschichte. No. 3. 1848.

Om Faglarnes geographiska utbredning Och Th. Munck af Rosenschold 19 Junii 1830.

Directions for collecting and preserving animals; by the Board of Curators of the Museum of the Royal College of Surgeons.

Ovarium Britannicum. By George Graves. 8vo.

British Ornithology. By George Graves. 3 vols. 8vo.

Ueber die sogenannten Seemäuse. Von W. G. Tilesius. 4to.

Comptes rendus. Tome 31. Nos. 2, 3, 4, 5. 4to.

November 12th.

Geschichtliche Betrachtungen über die Pferderacen. From Dr. Leidy.

Zur Kenntniss der Balanophoren insbesonders der Gattung Rhopalocnemus Jungh. Von Dr. H. R. Göppert. From Dr. Morton.

Beiträge zur Anatomie des Elephanten und der Ubrigen Pachydermen. Von Dr. C. Mayer. From the same.

Knospenbilder, ein beitrag zur kenntniss der Laubknospen und der Verzweigungsart der Pflanzen. Von A. Henry, M. d. Part. 1. Dicotyledonen. From the same.

Die Knochenreste eines in der Papierkohle des Siebengebirges aufgefundenen Moschusthieres beschrieben von Dr. Goldfuss. From the same.

November 19th.

American Journal of Science and Arts. Vol. 10, 2d series. No. 30. Nov. 1850. From the editors.

Archæologia Americana. Transactions and collections of the American Antiquarian Society. Vol. 3. 8vo. From the Society.

Journal of the Academy of Natural Sciences of Philadelphia. Vol. 2. New Series. No. 1. 4to. From the Publication Committee.

The following were presented by Dr Wilson on the usual condition:—

London Athenæum for September, 1850.

Comptes rendus. Vol. 31. Nos. 1 to 10.

Revue et Magasin de Zoologie. Nos. 7 and 8. 1850.

Zeitschrift für Malakozoologie. No. 5. 1850.

Manual of the Ornithology of the United States and Canada. By Thomas Nuttall. Land Birds. 2d edition. 1 vol. 8vo. Water Birds. 1st edition. 1 vol. 8vo.

December 3d.

Contributions to Ornithology. By Sir William Jardine. Part 4, 1850. From H. E. Strickland, Esq.

Proceedings of the Literary and Philosophical Society of Liverpool. No. 5. From the Society.

The South African Quarterly Journal. Nos. 1, 2, 3. 8vo. From Sir Wm. Jardine.

History of the Berwickshire Naturalist's Club. Nos. 1, 3, 4, 6 to 17. 8vo. From the same.

Bulletin de l'Academie Royale des Sciences, &c., de Belgique. No. 12, 1846. From Mr. Balliere.

Notice of the Remains of the Dinornis and other Birds, and of fossils collected by Walter Mantell, Esq., in the middle island of New Zealand. By G. A. Mantell, Esq. From the author.

Journal of the Indian Archipelago and Eastern Asia. Nos. 7 and 8. 1850. From the Editor.

Histoire naturelle des Mollusques terrestres et d'eau douce qui vivent en France. Par l'Abbé D. Dupuy. Pts. 1, 2, 3. 4to. From Edward Wilson, Esq.

Conspectus generum Avium. pp. 345—352, and 401—424. From the author.

Message of the Governor of Maryland in relation to the boundary lines of the States of Maryland, Pennsylvania, and Delaware. From Col. J. D. Graham.

Observations on the Fishes of Nova Scotia and Labrador, with descriptions of new species. By H. R. Storer. From Mr. C. Girard.

Journal des Mines, Vols. 14, 15, 16, 17, 18, 20 and 21; Annales des Mines, 3me serie, Vols. 1 and 2; 4me serie, Vols. 3, (No. 1) 6, 7, 8, 11, 12, 13, 14, 15, 16, 17, (No. 2.) From the Ecole des Mines.

Dr. Wilson presented the following on the usual condition:

Voyage en Abyssinie par MM. Ferrett et Galinier. Texte 8vo. livs. 13, 14, 15, 16: planches folio, livs. 13, 14, 15, 16.

Annals and Magazine of Natural History. 3d series. Vol. 6. Nos. 33, 34.

Transactions of the Tyneside Naturalists Field Club. Vol. 1. Nos. 3, 4.

Appendix to the first edition of the Natural History of Man. By J. C. Prichard, M. D.

Memoirs of the Geological Survey of the United Kingdom. Decade 3. 8vo.

Journal of the Franklin Institute. 3d series. Vol. 20. No. 5.

Zoology of the Voyage of the Samarang. No. 7. Mollusca, No. 3. 4to.

Conchologia iconica. By Lovell Reeve. Nos. 87, 88, 89, 90.

History of British Mollusca and their Shells. By Prof. Forbes and S. Hanly. No. 32.

Phycologia Brittannica. By Wm. Harvey, M. D. Nos. 50, 51.

Journal de Conchyliologie. Nos. 2, 3, 1850.

Madras Journal of Literature and Science. Nos. 26, 27.

The genera of Diurnal Lepidoptera. By E. Doubleday, continued by J. O. Westwood. Parts 35, 36.

Catalogue of the Mammalia in the Collection of the British Museum, part 1, Cetacea; of British animals in do., part 3, Birds, part 4, Crustacea; of Mollusca in do., part 2, Pteropoda; of the bivalve Mollusca in do., part 1, Placentadæ and Anomiadæ; nomenclature of Molluscous animals and shells in do., part 1, Cyclophoridæ.

Figures of Molluscous animals selected from various authors. By Maria Emma Gray. Vols. 2, 3, 4. 8vo.

Memoirs of the Wernerian Society. Vol. 8, part 1. 8vo.

Journal of the Royal Agricultural Society of England. Vol. 11, part. 1. 8vo.

Palæontographical Society—Monograph of the Entomostraca of the Cretaceous formation of England, by T. R. Jones, Esq.; Monograph of the Permian fossils of England, by William King; Monograph of the Fossil Reptilia of the London Clay, part 2, by Prof. Owen; Monograph of the British Fossil Corals, by H. Milne Edwards and Jules Haime, part 1.

Bibliographia Zoologiæ. By Prof. L. Agassiz and H. E. Strickland. Vol. 2. 8vo.

December 10th.

Catalogue of Shells in the collection of John C. Jay, M. D. 4th edition. 4to. From the author.

Memoir on the explosiveness of Nitre. By Robert Hare, M. D. From the author.

Contributions to the Natural History of the Acalephæ of North America. By L. Agassiz. Part 1. 4to. From the author.

A voyage round the world in H. M. S. Resolution, Capt. Cook, in 1772—'75. By George Forster. 2 vols. 4to. From Dr. Wilson, on the usual condition.

Francisci Hernandi Opera. De Historia Plantarum Novæ Hispaniæ. 3 vols. 4to. From the same.

Zoological Researches. By J. V. Thomson. No. 4. From the same.

Proceedings of the Royal Irish Academy. Vols. 1, 3, 4. 8vo. From Mr. Ball, of Dublin.

Address to the Geological Society of Dublin, Feb. 2, 1850. By T. Oldham. From the same.

Notice of the Remains of the Dinornis and other Birds, and of Fossils, &c., recently collected by Walter Mantell, Esq., in New Zealand. By G. H. Mantell, Esq. From the author.

Essai sur l'histoire naturelle. Par C. G. Chesnon. 8vo. From M. des Murs, of Paris.

Histoire des progres de l'esprit humaine dans les sciences et dans les arts qui en dependant. Par M. Saverien. 8vo. From the same.

Traité économique et physique des Oiseaux de Basse-Cour. 8vo. From the same.

Zasaday Ornitologii albo Nauki O Ptakach. Przez H. K. Tyzenhauza. 8vo. From the same.

Tableau methodique des Oiseaux dans le département de la Vienne. Par M. Manduyt. From the same,

Bulletin de la Société d'histoire naturelle du département de la Moselle. Nos. 1—5. 8vo. From M. Malherbe, of Metz.

Séance publique de l'Academie Nationale de Metz du 19 Mai 1850. Discours de M. A. Malherbe, President. From the same.

Nouvelle classification des Picinées ou Pics. Par M. Malherbe. From the same.

Remarks on the paucity of Libraries freely open to the public in the British Empire. By Edward Edwards, Esq. 2d edition. From the author.

A statistical view of the principal public libraries of Europe and America. By E. Edwards. 3d edition. From the author.

Analyse des travaux de la Société Linnéenne de Bordeaux pendant les années 1832–'33. Par M. J. L. Laporte. From M. Verreaux, of Paris.

A guide to an arrangement of British Birds. By the Rev. F. O. Morris. From the author.

Royal Institution of Great Britain, List of Members, Officers, &c., for 1849. From the Institution.

An outline of the smaller British Birds for the use of Ladies and young persons. By Robert A. Slaney. 2d edition. 12mo. From T. C. Eyton, Esq., of London.

The following were presented by Mr. Edward Wilson, of Pembrokeshire, Wales.

The export coal trade of Liverpool. By William Laird. 8vo.

Della bibliografia Malacologica Italiana. Dissert. inaug. de Geo. Baptista Bonola di Milano.

Éloge du Baron Cuvier. Par M. E. Pariset.

The Liverpool Docks; and Fire and Lights on board the Ships in the same. By Dr. Mackay.

Two short letters on the subject of an open Museum in the Scottish Capital. By Adam White.

Observations de M. Noel sur le Memoire de M. Raepsaet.

Mémoire sur différens sujets relatifs aux Sciences et aux Arts. Par M. de Puymaurin.

On the manufacture of Iron.

Appareils pour l'inhalation de la vapeur d'ether.

Dissertation sur l'existence des Dragons. Par M. Dorfeuille.

Eloge de M. Draparnaud. Par J. P. Th. Baumes.

Note des publications faites par M. G. P. Deshayes.

Histoire des Insectes nuisibles à l'homme, aux bestiaux, &c.. 3me ed. Par M. Buchoz. 12mo.

De Grammari Pulicis Fab. historia naturali atque sanguinis circuitu commentatio. Auctore J. C. Zenker.

Macrobiotus Hufelandii: animal e Crustaceorum classe novum, descriptus a C. A. S. Schultze.

The Insect World—or a brief outline of the classification, structure, and economy of Insects. 12mo.

Memoire pour servir à commencer l'histoire des Araignées aquatiques. 12mo.

Traité de Mouches à Miel. 12mo.

Des Vers à soie et de leur education selon la pratique des Cévennes. Par M. Reynaud. 12mo.

Abregé de l'histoire des Insectes. 2 vols. 12mo.

Neustes Magazin für die Liebhaber der Entomologie von D. H. Schneider. 2 vols. 12mo.

Kritische revision der Insektenfauna Deutschlands nach dem System bearbitet von Dr. G. W. F. Panzer. 2 vols. 12mo.

Index Entomologicus sistens omnes Insectorum species in G. W. Panzeri Fauna Insectorum Germaniæ. 12mo.

Nic. Joseph Brahm Handbuch der okonomischen Insectengeschichte in formeines Kalenders bearbeitet. 2 vols. in one. 12mo.

Faune de la Moselle, ou Manuel de Zoologie. Par C. H. L. Fournel. 2e partie tome 1me. 12mo.

Histoire naturelle des Papillons. 8vo.

Description du Pou vu au Microscope. Par P. Karjavine.

Die Kennzeichen der Insekten. Von J. H. Sulzer. 4to.

Naturgeschichte der schadlichen Waldinsecten mit abbildungen von J. M. Bechstein. 12mo.

Fauna Coleopterorum Helvetica. Auctore Oswaldo Heer. Parts 1, 2, 3. 16mo.

Monographia Mylabridum. Auctore G. J. Bilberg. 8vo.

Journal fur die Liebhaber der Entomologie von L. G. Scriba. 8vo.

Metamorphosis et historia naturalis Insectorum. Auctore Joanne Goedartio. 12mo.

Dissertatio sur l'utilité de la soye des Araignées. Par Mr. Bon. 8vo.

L'art d'elever des Vers à soie. Par M. L. D. Pillot. 12mo.

Jacobi Vanierii Apes. 12mo.

Apus pisciformis. Insecti aquatici species noviter detecta, brevibusque descripta a J. C. Schæffers. Ed. 2d.

Ueber den unmittelbaren Nutzen der Insekten. Von dem Kœnig. Gerichtsamtmann Keferstein in Erfurt.

Nova Dipterorum genera. Auctore Dr. C. R. G. Wiedemann.

Die Südafrikanischen Crustaceen. Von Dr. Ferdinand Kreuss.

Mémoire Aptérologique. Par Jean Fred. Hermann, M. D. Folio.

Memoires sur divers sujets de l'histoire naturelle des Insectes. Par M. Latreille. 8vo.

Memoria del Dott. Carlo Passerini sopra due specie d'Insetti nocivi, &c.

Observations entomologiques traduites et extraites d'un ouvrage inédit de M. le Dr. J. N. Vallott.

Sur la découverte du rapport constant entre l'apparition ou la disparition travail, ou le non travail, le plus ou le moins d'attendue des toiles ou des files d'attache des Araignées des diff. espéces. Par M. Quatremere Disjoinval.

Traité complet de l'insecte Kermés. Par M. de Truchet, d'Arles. 2d ed.

Essai sur l'Entomologie du Départment du Puy-de-Douie. Monographie des Carabiques. Par M. Baudet Lafarge.

La Flore des Insectophiles. Par Jacques Brez. 8vo.

De Coleopteris novis ac rariobus minusve cognitis Provinciæ Novocomi. Auctore Antonio Comolli.

Mémoire pour servir á l'histoire de quelques Insectes connus sous les noms de Termés, ou Fourmis blanches. Par M. H. Smeathman. Redige en Francois par M. Rigaud.

Meletemata Entomologica, Auctore Dr. F. A. Kolenati. 2 fascic. 8vo.

Traité complet sur les Abeilles. Par M. l'Abbe Della Rocca. 3 vols. 8vo.

The English Lepidoptera, or the Aurelian's Pocket Companion. By Moses Harris. 8vo.

Novæ species Insectorum. Auctore J. R. Fostero. 8vo.

Caroli lib. Bar. de Geer genera et species Insectorum e generosissimi auctoris scriptis extraxit, digessit, &c. A. J. Retzius. 8vo.

Gustavi Paykull Fauna Suecica. Insecta. 3 vols in one. 8vo.

Abbildungen zu Karl Illiger's Uebersetzung von Olivier's Entomologie. Von J. Sturm. 2 vols. 4to.

Histoire des Monocles qui se trouvent aux environs de Genéve. Par Louis Jurine. 4to.

Horæ Entomologicæ. Auctore Toussaint de Charpentier. 4to.

Mémoire sur l'education des Abeilles. Par Marie-Therese Beaujeu, veuve Barras.

Traite de l'education des Abeilles et de leur conservation. Par P. C. G. Beville.

Lepidoptera Pedemontana illustrata a Leonardo de Prunner. 8vo.

De l'Araneologie. Par Quatremere Disjoinval.

Mémoire sur les Abeilles. Par M. l'Abbe Bienaymé.

Études pour servir á l'histoire des Myriapodes. Par Paul Gervais.

Entomologia von Illiger. Par M. Olivier. 4to.

Fauna Insectorum Germaniæ. Auctore G. W. F. Panzer. 36 vols. 12mo. and one case.

January 7th, 1851.

Dr. Morton, President, in the Chair.

A letter was read from the Minister of Public Works of France, ated Paris, Sept. 4, 1851, accompanying No. 3, 4th series, of the nnales des Mines.

Also a letter from Mr. George R. Gliddon, dated Philadelphia, Jan. , 1851, requesting the loan, for a short time, of the Egyptian Mummy eposited in the Museum of the Academy by Mr. J. L. Hodge. Re-rred to the Curators.

Dr. Woodhouse read a communication intended for publication, ntitled "Description of the N. American Jackall, *Canis frustror*." eferred to a Committee consisting of Dr. J. C. Fisher, Dr. Townsend, nd Dr. Leidy.

Dr. Leidy read a communication from Mr. Richard C. Taylor, in-nded for publication in the Journal, entitled "Substance of Notes ade during a Geological reconnoisance in the Auriferous Porphyry egion next the Caribbean Sea, in the Province of Veraguas and Isth-us of Panama;" which was referred to the following Committee, iz:—Dr. Elwyn, Dr. Morton, and Mr. Ashmead.

The Secretary read an extract from a letter addressed to Dr. Morton y Dr. John Evans, dated St. Louis, Dec. 19, 1850, in relation to an ntended Expedition to Missouri and Oregon.

The Chairman called attention to the enormous development in the ize of the specimen of the common domestic cat presented by him his evening, as the result of emasculation. The following are the imensions, weight, &c.:

Length from tip to tip 3 feet; circumference at middle 19½ inches; eight 42 pounds; color black mixed with white.

The following Resolution, offered by Dr. Fisher, was adopted:—

esolved, That the President, Vice President, Secretaries and Librarian, e a Committee to address the Commissioner of the Land Office at ashington, and solicit an appropriation sufficient to carry out the iews of Dr. John Evans of Missouri, as expressed in his letter read his evening.

January 14th.

Vice President Bridges in the Chair.

Dr. Morton referred to some communications which he had recently ade to the Society, on the races of Dogs, showing their origin from arious species of dogs and wolves. He had endeavored to obtain in-ormation from persons whose frontier position as officers of the army, c., afforded them suitable opportunities for this purpose, and read letter from the Hon. H. H. Sibley, M. C., from Minesota of which he following is the substance.

The Indian Dog differs much in size and appearance among different tribes. Among the Sioux, it is large and grey, resembling the Buffalo Wolf. He supposes that the Indian dog is crossed with that Wolf. All Indian dogs have small, sharp, erect ears. They cross with our domestic dogs. He does not believe that the dog crosses with the small Wolf (C. frustror?) or the Fox. The Indian dog is most analogous to the grey wolf, and breeds freely with the European dog.

Dr. Morton also read extracts from a letter from Dr. Cooper, of the U. S. Army, dated Fort Duncan, Texas, Dec. 4, 1850. "The Giant Wolf or Lobo, [Lupus gigas] is found in this region. Its color is dark grey, nearly black. It is very fearless of man. I have seen several in the interior of Mexico. It is always solitary in its habits. The small wolf or *Coyote*, [C. frustror] is found in great numbers here. It is never more than eighteen inches or two feet long, nor more than fifteen inches high."

It resembles somewhat a grey fox-hound, and is always in packs of from ten to two or three hundred. It is the most gregarious animal of the dog kind on this continent. Its voice is not like that of the wolf. It feeds on the carcases of dead animals, and is very meagre. It became necessary to destroy one in camp to prevent its crossing with the dogs. Every rancho has a dog resembling the *Coyote*, and a bitch to which no dog had had access, produced whelps, evidently a cross with the *Coyote*.

In further remarks on this subject, Dr. Morton adverted to the fact that where a race is the result of a cross between two different species of animals, the characteristics of one or the other race will occasionally be exhibited with peculiar force in generations more or less remote from the origin.

Dr. Leidy called the attention of the Society to three fossil bones from Big Bone Lick, Kentucky, belonging to the collection of organic remains of the American Philosophical Society, and now deposited with the Academy, which he stated were the vertebra dentata, left os calcis, and the first phalanx of the left hind foot of the Equus Americanus, described by him in the Proceedings several years since. These bones are about the size of the corresponding bones of the largest sized English dray horse.

Dr. Elwyn asked permission, which was granted, to introduce a letter which he had received from Prof. Sheppard, of Charleston, S. C., requesting Dr. Elwyn to procure for him a portion of the Meteorolite, found in New Jersey some years since, and presented to the Academy by Dr. McEuen. Prof. Sheppard was desirous of making an analysis of this specimen and a comparison with other meteorolites in his possession, and offered in return a fragment from one of the latter specimens.

On motion the subject was referred to the Curators, with instructions to comply with the request of Prof. Sheppard.

January 21st.

Dr. MORTON, President, in the Chair.

The Corresponding Secretary read a letter from J. G. H. Kinberg, dated Malmo and Gronby, 16th December, 1850, announcing that he had forwarded additional objects of Natural History for the Academy, and desiring certain exchanges.

A communication was read from Joseph P. Hazard, Esq., dated Seaside, near Point Judith, Rhode Island, noticing the arrival of the Rocky Mountain Swallow in that neighborhood, with some observations on its habits.

"They first made their appearance here in the Spring of 1844, when fourteen pairs of them built on the east and west sides of an outhouse of my residence, and such strangers were they, that I was unable to learn the name of the species for some time. They have since confined themselves almost exclusively to the same premises, two or three pair only having in a few cases selected other localities in the neighborhood.

"In the autumn of the same year, (1844) I built a barn about half a mile distant, on the north side of which I provided for my new friends, in case they should visit me again, a convenient projection of nearly fifty feet in length, suitably protected. In the Spring ensuing, (1845) forty nests were built on the crib which was their first choice above alluded to, and as if for experiment, six nests only were built on the new barn, but in the Spring of 1846, sixty five nests were built on the barn, and the crib entirely deserted. In 1847, one hundred and thirty pairs built upon the barn and almost completely occupied the space prepared for them. At this time a few pairs which were crowded out took up quarters in the martin and blue-bird holes on the south side of the same building, ousting the rightful tenants which had previously arrived and taken possession.

As the location at the barn is much more protected than that on the crib, the nests are there constructed with much less reference to the probability of injury from the weather than formerly upon the latter, a circumstance which evinces a degree of *elasticity*, I believe not generally accorded to instinct.

These swallows make their first appearance here from the 10th to the 15th of May, and commence clearing out the old nests (in which many of the dead of the brood of the previous year are left) about the 1st of June. The material of which the nests are made, is a very fine sand with a small admixture of blue clay; when dry it is very friable and the nests suffer considerable dilapidation during winter. They generally make their appearance in a mass, but this season four birds only came on the 5th of May, which number received almost daily accessions until the 28th of the same month. Their arrival is earlier, and their departure also, than that of the barn swallow, none remaining, I believe, later than about the 1st of September.

"One circumstance in the habits of these birds, has struck me as peculiar: they are either all of them in the vicinity of their nests or all absent, not one to be seen on the premises, and although my observations have not been sufficiently particular to enable me to speak with certainty on this point, I am inclined to believe these intervals of absence are at regular hours of the day. I have seen them two miles distant, in pursuit of insects, which their now large numbers have probably rendered scarce in this more immediate vicinity."

—

Dr. B. H. Coates read a notice of the antiquity of the use of Tin, mentioning its importation from Britain by the Phœnicians, and inferring from passages cited from Homer that it was regarded at a very early period as a precious metal. The communication was referred to Mr. Thomas Fisher, Mr. Phillips, and Dr. Elwyn.

Dr. Leidy read a paper intended for publication in the Proceedings, describing some new entozoa. Referred to Dr. Hallowell, Dr. Morton, and Mr. H. C. Lea.

January 28th.

Vice President BRIDGES in the Chair.

The Committee on Mr. Richard C. Taylor's paper, read Jan. 7th, reported in favor of Publication in the Journal.

The Recording Secretary read the following Report for the year 1850.

REPORT

OF THE RECORDING SECRETARY

For 1850.

It is customary for the Recording Secretary to submit his report at the last meeting of the year, but unavoidable absence from home rendered it impossible for me to offer it before this time.

Nine members and eight correspondents have been elected, and four members have died, to wit:—the venerable and esteemed Alexander Maclure; Dr. William Gambel, who was not less remarkable for the goodness of his heart than for the cultivation of his mind; our lamented Vice President, Dr. Robert Eglesfeld Griffith, whose amiability and generosity not less than his great acquirements, have rendered his loss severe; and the first elected President of the Institution, Dr. Gerard Troost, who has passed away after a long life devoted to the pursuit of science.

By comparing the list of the Society published October 1, 1848, with subsequent changes, there appear to have been elected up to this time 250 members and 543 correspondents, amounting in all to 793.

It does not appear that the institution was ever so prosperous. The average attendance at the meetings has been large, and many objects have been zealously pursued. Many communications of great interest have been made, as the publication of the Proceedings and the Journal will establish.

I trust that I may be pardoned for suggesting that the prosperity of the Academy might be still farther extended, if the system of introducing strangers to the ordinary meetings were more general. A taste for the pursuit of science might thus be cultivated, and the Society enlarged by some very excellent additions.

During the year the By-Laws have been amended as follows: Chapt. 6, Art. 1. There shall be sixteen standing committees, (instead of fifteen, as before the amendment): so that the committee on mineralogy and geology be divided.

Besides several minor communications, the following have been made during the year. Four by Mr. John Cassin, entitled, Descriptions of new species of birds, specimens of which are in the collection of the Acad. Nat. Sci. of Philadelphia, (6 species) published in Proceedings; Descriptions of new species of birds of the genera Paradisea, Pastor, and Buceros, and a proposition to rename others of the genera Alcyone and Hirundo, (8 species described) published in Proceedings; Descriptions of new species of Birds collected by Mr. John G. Bell in California, (7 species described) published in Proceedings; Notice of an American species of Duck hitherto regarded as identical with the Oidemia fusca, (Linn.) published in Proceedings. One by Mr. T. A. Conrad, entitled, Descriptions of new species of Fresh water Shells, (10 species) published in Proceedings. One by Mr. James Deane, On the Fossil foot prints of Connecticut River, which was published in the Journal. One by Dr. Lewis R. Gibbes, Catalogue of the Crustacea in the Cabinet of A. N. S., with notes on the most remarkable, together with Additions and Observations by the Committee to whom the foregoing was referred, published in the Proceedings. One by S. S. Haldeman, Report on the progress of Entomology in the U. S. One by Mr. A. C. Harris, On the existence of the Ibis religiosa on the Nile. One by Dr. T. C. Henry, of Albany, on two fishes from Oswego Lake. Twelve by Dr. Joseph Leidy, as follows:—Observations and remarks on Entophyta in living animals and on the theory of generation; Observations accompanying numerous elaborate drawings of new entophyta in animals; Remarks on the existence of crystals within animal organic cells; on eight new American species of Annelida abranchia, (Journal); on new species of Entophyta growing within animals, 3 species; describing two new species of Infusorial Entozoa; descriptions of some nematoid Entozoa infesting insects; observations on two new genera of Mammalian fossils, Eucrotaphus Jacksoni, and Archæotherium Mortoni; descriptions of three Filariæ; on the nettling organs of Hydra; descriptions of new genera of Vermes (6); on some bones of Rhinoceros nebraskensis, &c., received from the Smithsonian Institute. Three by Dr. Morton, one very full communication (of which parts were made at various times) in continuation of his paper on the size of the brain in the various races of man; on the value of the word species in Zoology; on the antiquity of some races of dogs. One by Theodore F. Moss, description of a new Carpolite from Arkansas. One by Prof. David Dale Owen, and J. G. Norwood, and John Evans, notice of fossil remains brought by Mr. Evans from the Mauvaises Terres or Bad Lands of White River, 150 miles west of the Missouri, published in Journal. One by Prof. David Dale Owen, and B. F. Shumard, M. D., description of ten new species of Crinoidea from the subcarboniferous limestone of Iowa, Wisconsin, and Minesota, 1848—9, (Journal). One by Mr. R. C. Taylor, Meteorological table and notes on the climate on the east coast of the Isthmus of Panama, Port Royal in Jamaica, and on the voyage to New York. One by Dr. J. K. Townsend, describing a new species of American wolf, Lupus gigas, Townsend, of North America, published in Journal.

It may not be improper while enumerating the communications, to direct attention to a letter from Dr. Joel Y. Shelly, accompanying fossil remains of a supposed saurian found in Upper Milford, Lehigh county, Pennsylvania. Although not personally acquainted with this locality, it is believed to belong to a formation anterior to the coal, and it may be coeval with the period of the fossil footprints in red sandstone described by Dr. A. T. King in Proceedings for December 1844, and December, 1845. If this supposition be correct these are probably very old and interesting remains of vertebrate animals and are therefore deserving of attention.

It seems improper to close a notice of the records, without briefly adverting to the very large portion of them occupied by mere lists of the munificent donations received throughout the year. The constant liberality with which so many of the wants of the Academy are supplied, must be a rich source of gratitude in the hearts of all its friends, and while an exquisite and high toned delicacy on the part of a distinguished benefactor forbids me to breathe his name, his generous gifts are appreciated among our richest treasures. All which is respectfully submitted by

SAMUEL POWEL,
Philadelphia, January 28th, 1851. Recording Secretary.

ELECTION OF MEMBERS.

John Jordan, Jr., Esq., and B. Howard Rand, M. D., of Philadelphia, were elected *Members* of the Academy.

Election of Standing Committees for 1851.

The following committees on the various departments of Science, &c., were elected to serve for the year 1851.

Ethnology, S. G. Morton, J. S. Phillips, J. C. Fisher; *Comparative Anatomy and General Zoology,* Joseph Leidy, E. Hallowell, B. H. Coates; *Mammalogy,* S. G. Morton, J. W. Woodhouse, R. Kilvington; *Ornithology,* E. Harris, John Cassin, J. K. Townsend; *Herpetology and Ichthyology,* E. Hallowell, John Cassin, W. Keller; *Conchology,* T. A. Conrad, T. B. Wilson, H. C. Lea; *Entomology and Crustacea,* S. S. Haldeman, R. Bridges, W. S. Zantzinger; *Botany,* R. Bridges, W. S. Zantzinger, Gavin Watson; *Palæontology.* T. A. Conrad, T. B. Wilson, Joseph Leidy; *Geology,* R. C. Taylor, T. F. Moss, Samuel Powel; *Mineralogy,* J. Price Wetherill, S. Ashmead, W. S. Vaux; *Physics,* J. S. Phillips, J. C. Fisher, Thos. Fisher; *Library,* R. Bridges, T. B. Wilson, J. Lambert; *Proceedings,* S. G. Morton, W. S. Zantzinger, Joseph Leidy.

February 4th.

Dr. MORTON, President, in the Chair.

A letter was read from Prof. C. U. Sheppard, dated Charleston, S. C., January 20, 1851, presenting his thanks for the fragment of the

New Jersey Meteorolite, and enclosing in return a portion of the Cabarras Meteorolite; and also stating his intention to make further donations of other meteorolites at an early period. From an examination of the specimen sent him, he had thus far obtained the following results. Sp. gr. 3.25: it also abounds with nickeliferous iron, together with magnetic iron pyrites, while the greyish-white earthy matter appears to be Howardite. $(\dot{Fe}\,\dddot{Si} + \dot{Mg}\,\dddot{Si}.)$

A letter was read from the Scandinavian Scientific Association (without date,) accompanying the donation of a copy of its Proceedings during the last meeting at Copenhagen.

A letter was read from H. B. Dewey, Esq., dated Para, Brazil, Dec. 28, 1850, tendering his thanks for his election as a Corresponding member of the Academy, and expressing his desire to still further promote the objects of the Institution.

A communication addressed by Peter A. Browne, Esq., to Dr. Morton was read, briefly enumerating the discoveries he had made by means of the microscope, micrometer, and trichometer,* in regard to *pile*, by which term he meant to include both hair and wool, as follows:

1st. I have found the hair of the head of man of three principal shapes, viz.: 1. The cylindrical; 2. The oval; and 3. The eccentrically elliptical.

Of the 1st I have noticed the ancient hairs from Peru, Mexico, Brazil, &c., those of our present Indians and the Chinese. Of the second, the hairs of the English, French, Hungarians, Germans and Americans, &c., &c. And of the third the wool of the Bushman and African negro.

2d. The pile of the 1st and 2d class comes out of the epidermis at an acute angle, that of the third at a right angle.

3rd. The pile of the 1st class is straight and lank, that of the 2d is flowing or curling, and that of the 3rd is crisp or frizzled, and sometimes spirally curled.

4th. The pile of the 2d class has its coloring matter in a central canal, but I have never been able to detect any central canal in either of the other classes; their coloring matter appears to me to be disseminated in the cortex and intermediate fibres.

5th. The cortex of the pile of all three classes is squamose; but the scales on the 1st and 2d classes are less numerous, are rounded at the anterior extremity, and adhere closely to the shaft; but those of the 3rd class are more numerous, pointed, and not so closely set to the shaft.

6th. That there are two distinct species of sheep, as determined by their pile, viz.—the hairy sheep, and the woolly sheep. The pile of the hairy sheep will not felt nor full; the wool of the woolly sheep will do both.

7th. Upon the heads of hybrids formed by the crossing of any two of the species of man above mentioned, are found separate filaments belonging to their two classes respectively; and upon the head of a double hybrid,† which I examined, I found filaments belonging respectively to all three classes.

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* An instrument invented by Mr. Brown for determining the ductility, elasticity, and tenacity of filaments.

† One who had the blood of all three classes.

9th. All hair is not polaric.

10th. There are various degrees of the felting property in wool, which may be determined by the aid of the microscope, as they depend upon the number, shape and adherence of the scales.

11th. The *softness* of any woolly fabric, is in exact proportion to the *ductility and elasticity* of the filaments of which it is composed; and the ductility and elasticity of the fibre can be accurately determined by the trichometer.

12th. The method in common use of determining the diameter of any filament that is not cylindrical is inaccurate, for every filament that is not cylindrical has *two* diameters, which cannot be accurately determined, except by using *transverse* sections.

13th. That in all cases of doubt or difficulty, whether a filament is or is not a true hair, it can be determined with the trichometer.

14th. The *button* of the pile of the head of man changes its shape and color in diseases of the hair, and in diseases of the skin that affect the hair.

15th. The *buttons* of the pile of the head of lunatics differ from those of the sane.

16th. There is no difference between the wool found upon the head of a pure negro, and that found upon the back of a woolly sheep, except in the *degree* of the felting power possessed by them.

Dr. Morton in remarking upon the cranium of the Dijak deposited by him this evening, referred to the great difficulty in obtaining these crania, and stated that Mr. Wm. Gliddon, from whom he had derived the present specimen, had been unable, during many years residence in Borneo, to induce the natives to part with any of their trophy skulls upon any consideration. This had been carried off by a Dutch officer on a warlike expedition.

Dr. Morton announced the decease of Mr. John J. Audubon, a member of this Society; and after some appropriate observations upon the life and character of this distinguished zoologist, moved the following Resolutions, which were unanimously adopted:—

Resolved, That this Society has heard with profound regret of the death of their esteemed and venerable colleague, John James Audubon, at his residence near the city of New York, on the 27th ultimo.

Resolved, That by the demise of this truly great man, Science has lost one of her most zealous and gifted disciples, and the Arts, a master in the branch which he cultivated.

Resolved. That we recognise in Mr. Audubon a man who has happily lived to fulfil his destiny as an explorer of the great field of American Zoology, while the splendid volumes which are the fruit of his labors, will diffuse the knowledge and the love of science to the latest generations.

Resolved, That a copy of these Resolutions, signed by the officers, together with the sympathy of the members of this Society, be respectfully tendered to the family of Mr. Audubon.

On leave granted, the Committee, to whom was referred the paper of Dr. Woodhouse, read January 7th, 1851, describing a new species of Jackal, presented a report, recommending the same for publication in the Proceedings and Journal, with some additional remarks on the subject by the Chairman, Dr. J. C. Fisher, which was adopted.

The North American Jackal—CANIS FRUSTROR.

By S. W. WOODHOUSE, M. D.

Char. Essent. Hair cinereous grey, varied with black above. Longer on the vertebral line, legs fulvous.

Dimensions.—Total length from the tip of the nose including the tail, with the exception of the hair at the tip, two feet seven inches; trunk of the tail eight and three-tenths inches; total length of ears four and three-tenths inches; length of fore leg nine inches: from the anterior canthus of the eye to the tip of the nose two and seven-tenths inches; from anterior angle of ear to posterior canthus of the eye two and four-tenths inches; between the anterior angles of the ears two and five-tenths inches.

Description.—Hair at base fulvous and woolly, middle of its length white and tipped with black; ears erect, pointed at tip, cinnamon color behind and at the base; inside dirty white, sides paler than the back, belly brownish white, breast brown, chin white, legs cinnamon color; the nose from the eyes to the tip cinnamon color. Cheeks grey; space between the ears reddish brown; tail fulvous below, dark grey above, black at tip, slightly bushy; iris light brown, lips white tipped with black; it has three series of setæ on the upper lip, above the eyes, and on the sides of the cheeks.

The most remarkable difference exists in the skull of this animal, which more closely resembles the Jackal of the Old World than any known species of wolf. But as Dr. Morton is now engaged on a memoir in which the cranial characteristics of the American wolves will be compared with those of the *Canis lupus* of Europe, I leave this part of the subject in his hands.

Habits.—This animal I first saw at Fort Gibson, on the Neosho river. They frequent this place at night in numbers, making their way to a ditch where the offals of the garrison are thrown. Their bark is sharp like that of a terrier, followed in quick succession, then a prolonged cry much like that of the hound.

Four or five of them make as much noise as twice their number of terrier dogs, so that a stranger on hearing them is apt to be deceived as to their number. I have seen them on all parts of the prairie, but they appear to be more abundant near the settlements.

They prowled frequently about our camp at night, keeping up an incessant barking.

I procured a male and female; these I regret to say have not lost their milk teeth, but they have attained their full growth, as I have seen numbers of them.

On showing them to Dr. Townsend, he recognised them immediately, and said that he had seen them frequently on the plains of the Missouri, but never beyond the mountains.

This animal has hitherto been confounded with the *Canis latrans* of Say.

Observations by the Committee.

The Committee are much gratified with this paper, as it assists in throwing light upon a point in the Natural History of the wolves of North America, which has heretofore been involved in obscurity. Before the description of the Lupus Gigas of North America, by Dr. Townsend, all the varieties of wolves in this country were referred by naturalists to two species, the Lupus occidentalis or common wolf, and the Lupus latrans, or prairie wolf. Sir John Richardson was the first who unequivocally described the wolves of North America, as distinct from the European or Pyrenean wolf. The great majority of naturalists who have noticed the wolves of this continent, including Grey, Agassiz, De Kay, &c., agree with him in considering them as entirely distinct species from the wolves of the Eastern Continent.[*] With the exception of the "large brown wolf," of Lewis and Clarke, they all refer the American wolves of every variety to the two species named Lupus occidentalis, and Lupus latrans. It was scarcely possible to reconcile the various descriptions of the different wolves classed under the last of these, Lupus latrans, as belonging to the same animal. The Lupus latrans of Say, found on the *Upper* Missouri and the Saskechawan, is classed by Richardson[†] with the Californian *Ochropus*, and the Mexican *nigrirostis*, (known also as the Coyote.) He has given a figure of the Lupus latrans, which agrees exactly with a specimen in the possession of the Academy.

The figure given by Audubon in his Quadrupeds of North America, Plate 71st, does *not* agree with Richardson's, or with the specimen above referred to, but *does* agree very closely with the Canis frustror, in color, shape, &c. It is an excellent drawing of the last mentioned animal. The Coyote of Mexico and California, has been, we believe, uniformly referred by naturalists to the Lupus latrans, and the drawing of Audubon appears to have been made from it, considered as an undoubted Prairie wolf. The figure of the Hare Indian dog of Richardson, the Canis familiaris lagopus, bears a very striking resemblance to the Lupus latrans of Audubon, and the Canis frustror of Woodhouse. We are inclined from the figure, measurements and description of the voice, to consider this dog as the analogue among our domestic animals of the Canis frustror or Coyote, if it be not the same animal merely domesticated. From the Canis frustror hunting so uniformly in packs of considerable numbers, as well as its size, it is more nearly allied to the Jackal than the wolf. It is decidedly gregarious in its habits. We hope that the Academy will soon possess good specimens of all the wolves of this continent, so that a more strict comparison may be made, and this question of species be definitely settled. At present we may consider the following species as clearly established, viz: Lupus gigas, Lupus occidentalis, Lupus latrans, and Canis frustror.

On leave granted Mr. Vaux, as Treasurer of the Publication Committee, presented the Annual Report, which was adopted.

February 11th.

Dr. Morton, President, in the Chair.

A letter was read from Dr. N. S. Jarvis, addressed to Dr. Morton, dated Fort Brown, Texas, Jan. 10, 1851, in answer to some enquiries by

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[*] Report of the British Association for 1836.

[†] Fauna Boreali Americana.

Dr. Morton on the subject of the Lobos, Coyote, and Indian dogs. This letter was received by Dr. Morton on the 5th inst., and enclosed another in the French language from Dr. Louis Berlandier to Dr. Jarvis, dated Matamoras, Jan. 5th, 1851, with accompanying descriptions of several species of Canis indigenous to Mexico. Dr. Berlandier's knowledge and means of information on this subject had been very extensive, and his descriptions were well worthy the notice of the Society. His letter and descriptions were on motion referred to the Committee who had had charge of Dr. Woodhouse's paper, viz., Dr. J. C. Fisher, Dr. Leidy, and Dr. Morton.

Mr. Cassin stated on behalf of the committee having in charge Dr. T. C. Henry's paper describing a new species of Fish from Oswego Lake, N. Y., that a more extended communication had been received from the author by the Committee.

Mr. Cassin read a paper intended for publication in the Proceedings entitled, "Sketch of the Birds composing the genera Vireo Vieill. and Vireosylvia, Bonap." &c. Referred to Dr. Wilson, Dr. Bridges, and Mr. E. Harris.

February 18th.

Vice President Bridges in the Chair.

Mr. Cassin read a paper describing new species of the genera Bucco and Galbula, Briss. Referred to the committee on the paper by Mr. Cassin read at last meeting.

A letter was read from the Secretary of the Asiatic Society of Bengal, dated Aug 5, 1850, acknowledging the receipt of Part 3, Vol. 1, New Series of the Journal.

February 25th.

Dr. Morton, President, in the Chair.

The Committee on Mr. Cassin's papers, read 11th and 18th insts., reported in favor of publication in the Proceedings.

Sketch of the Birds composing the genera Vireo, Vieillot, and Vireosylvia, Bonaparte, with a List of the previously known and descriptions of three new species.

By John Cassin.

I. *Genus* Vireo, Vieillot. Hist. Nat. des Ois. de l'Am. Sept. i, p. 83. (Folio, Paris, 1807.)

1. *Vireo flavifrons*, Vieill. Ois. d'Am. Sept. i, p. 85, pl. 54. Aud. B. of Am. pl. 119.

Musicicapa sylvicola, Wilson. Am. Orn. i, p. 217, pl. 7, fig. 3.

Hab.—Eastern side of North America.

Obs.—The name given by Wilson, as above, of this handsome species, appears to have been taken from Bartram's Travels, p. 290, though not being expressly so stated by him, it may have been applied by Bartram to another bird.

2. *Vireo solitarius*, (Wils.) Aud B. of Am. pl. 28.
Muscicapa solitaria, Wilson. Am. Orn. ii., p. 143, pl. 17, fig. 3.
Hab.—The whole of North America.

3. *Vireo noveboracensis*, (Gm.) Aud. B. of Am., pl. 63.
Muscicapa noveboracencis, Gmelin. Syst. Nat. ii., p. 947, (1788.).
Vireo musicus, Vieill. Ois. d'Am. Sept. i, p. 83, pl. 52.
"Muscicapa cantatrix, Bartram." Wilson Am. Orn. ii., p 166, pl. 18, fig. 6.
Hab.—The whole of North America.

Obs.—It appears upon the authority of Wilson that this is the Muscicapa cantatrix, Bartram That name, even if it had priority, is not entitled to adoption, not being accompanied by any description whatever. The name alluded to is given with many others, in "Travels through North and South Carolina, Georgia, East and West Florida," &c., by William Bartram, Philadelphia, 1791, (octavo, 1 vol.,) p, 291. According to my views the authority for M. cantatrix should be Wilson, he having first defined the species, though very probably upon the designation of the celebrated Bartram himself. I do not mean to say, however, that none of the names of the latter ought to be adopted, for there a few of the species named by him, to which are attached sufficient descriptions, and which I hope to designate in an early paper.

4. *Vireo Bellii.* Aud. B. of Am. Octavo edition, vii, p. 333, pl. 485, (1844.)

Dimensions.— ♂ Total length of skin from tip of bill to end of tail 4 6-10ths inches, wing 2 3-10ths, tail 2 inches.

Colors.— ♂ Under mandible, viewed from below, yellowish white, superior mandible light brown. Shafts of the quills on the inferior surface of the wing, white. Entire plumage above light olive tinged with greyish brown on the head, wings and tail brown, the feathers of both of which are edged externally with pale yellowish green, quills with their inner webs narrowly edged with yellowish white. Greater and lesser wing coverts conspicuously tinged with the same color. Plumage of the entire under parts of the body pale yellowish white, running into pure yellow on the sides and inferior tail coverts. Nares and ring around the eye yellowish white. Tarsi and feet dark.

♀. Slightly smaller, colors paler, head inclining to cinereous, under parts nearly white.

Hab.—Western side of North America.

Obs.—The smallest of the birds of this genus. It was discovered by Mr. Audubon on the Upper Missouri river, during the last expedition accomplished by him, and has since been found in California by Mr. John G. Bell, after whom it is named. The descriptions above are from the specimens of the latter gentleman and from the originals of Mr. Audubon, which were presented to the Academy by his friend and associate Mr. Edward Harris.

5. *Vireo Huttoni*, nobis.

Form.—Robust and rather broad, generally similar to that of V. noveboracensis.

imensions.— ♂ Total length of skin from tip of bill to end of tail 4 9-10ths
ies, wing 2 4-10ths, tail 2 inches.

olors.— ♂. Under mandible viewed from below, dark horn color, superior
dible nearly black. Shafts of quills on the inferior surface of the wing dark
wn. Entire plumage above light olive green, inclining to yellowish on the
p and upper tail coverts. Greater and lesser wing coverts broadly tipped
h white, appearing to form two conspicuous bars on the wing; quills brown
ernally, narrowly edged with yellowish green, and internally edged with white,
spicuous when viewed from below. Plumage of the entire under parts greenish
am color, (very delicate and peculiar,) inclining to yellowish on the flanks.
es and ring around the eyes yellowish white. Tarsi and feet dark. "Iris
k hazel, feet blue."

♀. Slightly smaller, very similar in color to the male.

ab.—Monterey, California, (Mr. W. Hutton.) Georgetown, California, (Mr.
. Bell.)

bs.—This species of Vireo may be recognized without difficulty by the very
cate cream color of the entire under surface of its body, which color I have
er seen in any other bird. In other respects it somewhat resembles Vireo
ii, though it appears to be a stouter and more robust bird; the only specimen
he collection of the Academy is that of Mr. Bell; there are two others in the
ection of the Smithsonian Institution, to which they were presented with many
er birds, by Mr. William Hutton, a zealous and talented young naturalist now
dent at San Diego, in California. in honor of whom I have taken the liberty
aming it.

Ir. Bell's remarks on this species are as follows: "I shot this bird at George-
n, October 15th, 1849. My attention was attracted to it by its song, which
ewhat resembled that of the warbling Vireo, (*V. gilvus*,) though the differ-
e could easily be detected. It was in a very high pine tree, and the only
cimen that I ever saw or heard. The country was hilly, and covered with
w oaks. This bird was a male."

I. *Genus* VIREOSYLVIA, BONAPARTE. Geog. and Comp. List of the Birds of
ope and N. America, pl. 26, (1838.)

. *Vireosylvia olivacea*, (Linn.) Aud. B. of Am., pl. 150.

Iuscicapa olivacea. Linn, Syst. Nat. i., p. 327.

ab.—Eastern side of North America. Western?

. *Vireosylvia virescens*, (Vieill.) Wilson Am. Orn. ii., pl. 12, fig. 3.? Aud.
of Am., pl. 434, fig. 4.

ireo virescens. Vieillot, Ois. d'Am. Sept. i., p. 84, pl. 53.

anius agilis, Lichtenstein. Verzeichness, p. 49? Spix. Av. Bras. ii., p, 25.
34, fig. 1?

ireo Bartrami, Swainson. Fau. Bor. Am. ii, p. 235.

ab.—North and South America.

bs.—This species is very similar to the preceding in color, but is smaller, its
gs are shorter and its plumage is of more vivid green. The under parts of
body are tinged with yellow, especially the inferior tail coverts, much more
in *V. olivaceus*. It appears to be a common bird in South America, and I have
specimens said to be from Trinidad. The best descriptions extant of this

species are those of Swainson, as cited, and of Audubon in Ornith. Biog. v., p. 296. I am not without suspicion that this is the bird figured by Wilson, as above.

3. *Vireosylvia altiloqua*, (Vieill.) Vieill, Ois. d'Am. Sept. i., pl. 38.
Muscicapa altiloqua. Vieillot, Ois. d'Am. Sept. i., p. 67.
Vireo longirostris, Swainson. Fauna Bor. Am. ii., p. 237.
"Vireosylvia olivacea, (Linn.)" Gosse, B. of Jamaica, p. 194?
"Turdus hispaniolensis. Gm." Lath. Gen. Hist. v. p. 149.
Phyllomanes mystacalis. Cabanis, Erichson Archiv, 1837, p. 348?

Hab.—Florida, West Indies, and South America.

Obs.—A species also considerably resembling *V. olivacea*, but larger and with the bill distinctly longer. It is easily distinguished by the narrow black lines running downwards from the corners of the lower mandible.

This is the largest of all the species yet discovered, and was first obtained within the present limits of the United States, by Dr. A. L. Heermann, in Florida. It is probably the bird alluded to by Mr. Gosse, in his delightful volume on the Birds of Jamaica, though I can only judge by the measurements given by him which are too large for *V. olivaceus*. Mr. Gosse appears though to have had access to the plate of Audubon and possibly that of Wilson. He gives no detailed description. Nuttall, in Manuel i., p. 360, (1840,) says "the *V. olivaceus* has never yet been found in those islands," (the West Indies,) but it does not appear to me to be impossible at all that it may be, as Audubon met with it in Florida and Louisiana. (Orn. Biog. II., p. 288.)

4. *Vireosylvia flavoviridis*, nobis. Buff. Pl. Enl. 558, fig 2?

Form.—Generally resembling that of *V. altiloqua*, but is rather smaller, the wings and legs are shorter, and the latter much less robust, the bill is also slightly more slender.

Dimensions. Total length of skin from tip of bill to end of tail 5¼ inches, wing 3 and 2-10ths, tail 2 and 2-10th inches.

Colors. Head above pale cinereous, superciliary stripes pale ashy-white, not so distinctly defined as in *V. altiloqua*. Entire plumage of the body above fine yellowish olive, wings and tail brown with their feathers widely margined externally with the same yellowish olive and internally with yellowish white. Sides of the neck and of the body beneath, inferior wing and inferior tail coverts fine greenish yellow, middle of the body beneath from the base of the bill to the abdomen pure white. Upper mandible lead color, lower white. No black lines from the base of the lower mandible, and general color of the body above much more vivid than in *V. altiloqua*. Irides red.

♀ Rather smaller and colors paler.

Hab. Panama, where it was obtained by Mr. John G. Bell, and San Juan de Nicaragua, from whence it was sent to this Academy by Mr. A. de Barruel.

Obs. This is a very handsome species, much more brightly colored, and without the black lines on the front of the neck which characterize the *V. altiloqua*. Four specimens are in the collection of the Academy.

Mr. Bell represents this bird as having been rather common near Panama in May, 1849, and that in habits and song it much resembled the red-eye, (*V. olivacea*.)

5. *Vireosylvia gilva*, (Vieill.) Wilson Am. Orn. v, pl. 42, fig. 2. Aud. B. of Am , pl. 118.

Muscicapa gilva. Vieillot. Ois. d'Am. Sept. i, p. 65, pl. 34.

Muscicapa melodia. Wilson Am. Orn. v. p. 35.

Hab. The whole of North America.

6. *Vireosylvia philadelphica*, nobis.

Form. Generally somewhat resembling that of *V. gilva*, but is smaller, with the bill much shorter, and the form generally shorter and stouter.

Dimensions. Total length of skin from tip of bill to end of tail 4½ inches, wing 2 and 6-10ths, tail 2 inches.

Colors. Line over the eye pale greenish white, very distinct. Entire upper parts olive green, inclining to ash on the head, quills and tail feathers brown, narrowly edged with green. Under parts pale yellowish white, shading into greenish upon the sides. Nares dark, bill horn color.

Hab. Near Philadelphia.

Obs. This small species resembles *V. gilva* more than it does any other species, but is smaller and can at once be distinguished by its much shorter and weak bill. Its colors are more vivid and the superciliary line more distinct.

I shot the bird now described in Bingham's woods near Philadelphia in September, 1842, but have never seen another specimen. It was in the upper branches of a tree of considerable heighth, engaged in capturing insects, and attracted my attention by its slow and apparently deliberate movements.

III. Notice of species which I have not seen, and general observations.

1. *Vireo versicolor.* Hartlaub. Revue Zoologique, 1843, p. 289.

Orig. descrip. " Supra olivaceo-viridis, pileo toto nuchaque nigricante-plumbeis; plumulis ciliaribus dilute flavis, tectricibus alæ majoribus *rufis;* remigibus primariis angustissime, secundariis latius *rufo* marginatis, tertiariis pogonio externo pallide fulvis; flexura alæ flavo et olivaceo variegata; subtus flavus, gula collo antico pectoreque fasciolis multis interruptis et irregularibus olivaceis transversim variegatis; cauda nigricante, rostro obscure plumbeo; mandibulæ tomiis apiceque albidis, pedibus nigris. Long. 4½. La plus petite espece du genre."

Above olive green, with the head above and nape blackish lead color, ciliary feathers pale yellow, greater wing coverts *rufous*, primaries very narrowly, secondaries more broadly margined with rufous, tertiaries with their external webs pale fulvous, flexure of the wing variegated with yellow and olive; beneath yellow, throat, neck before and breast with many interrupted and irregular transverse little lines of olive, tail blackish, bill obscure lead color, edges of the mandibles and apex white, feet black. Length about 5 inches, (4½ inches French.) The smallest species of the genus.

Obs. This bird must be quite different in general appearance from any other of either of the genera Vireo or Vireosylvia. Its rufous wing coverts and broad margins of the secondaries also rufous are quite peculiar.

M. Hartlaub is mistaken about this being the smallest of the genus. There are at least three species which are smaller.

2. *Vireo Vigorsii*, (Aud.) Richardson, Report on N. A. Zoology to Brit. Assoc. for the Adv. of Science, (in Sixth Rep. Brit. Assoc. 1837, p. 172.)

Sylvia Vigorsii. Aud. Orn. Biog. 1 p. 153, pl. 30.

Obs. Audubon's figure has a Vireo-like look, and ought to be remembered. In his Synopsis, p. 55, he places this name as a synonyme for Sylvicola pinus, (Lath.)

3. *Vireosylva* is the orthography of M. Bonaparte in Geog. and Comp. List. p. 26, but in Conspectus Avium, p. 329, he makes it *Vireosylvia*, the former being apparently a typographical error. It is a very natural and easily defined genus, and was first pointed out by this deservedly celebrated naturalist in the edition of the work cited which was published in 1838. In Erichson's Archiv, xiii. p. 321, (1847,) Mr. Cabanis necessarily proposes the name *Phyllomanes* as a substitute.

Descriptions of new species of birds of the genera Galbŭla and Bucco, Briss., specimens of which are in the collection of the Academy of Natural Sciences of Philadelphia.

BY JOHN CASSIN.

1. *Galbula cyanicollis*, nobis.

Form. Not essentially different from that of other short-tailed species. Rather stout, space from the bill around the eye bare and conspicuous, middle tail feathers but slightly longest.

Dimensions. Total length of skin from top of bill to end of tail 7⅛ inches, wing 3 and 1-10th, tail 3 inches.

Colours. Head above blue with golden olive reflections, the same color, blue, extends from the base of the bill upon the neck beneath the bare space around the eye, bordering (upon the neck only) the deep reddish brown of the entire under surface of the body. Entire plumage above and two middle tail feathers golden-green, very brilliant, and inclining to red in some lights. Outer tail feathers reddish brown, slightly edged externally with golden-green, quills black, primaries narrowly and secondaries broadly edged on their inner webs with brown, rather paler than that of the body beneath. A trace of a green collar on the neck in front.

Tip of upper mandible black, basal portion of upper, whole of under mandible (space around the eye and feet ?) yellow.

Hab. Para, Brazil.

Obs. This species is related to G. chalcocephala, Deville, and G. albirostris, Lath. I am acquainted with no other species in which the head and neck are blue as above described. Several specimens are in the collection, all of which are from Para.

2. *Bucco Ordii*, nobis.

Form. Generally short and robust, feathers of the head but little elongated, wings and tail short. A strict congener of B. macrorhynchus and pectoralis.

Dimensions. Total length of skin from tip of bill to end of tail 7¾ inches, wing 3 and 3-10ths, tail 2 and 8-10th inches.

Colors. Tail with a central transverse white bar. Breast with a narrow band of black, immediately succeeded by another much wider of dark chesnut-brown, throat and abdomen white, which is the color also of the frontal feathers of the internal webs of the primaries at their bases, and of a narrow collar on the back of the neck. Entire superior surface of the head, body, wings, and tail black, with a greenish gloss. Tail with a band of white most observable on the inner webs of the feathers, and narrowly edged with white at its end. Flanks striped with the same dark brown as the broader belt of the breast.

Hab.—Venezuela.

Obs.—A bird resembling generally the several species of which Bucco macrorhynchus, Gm. is a representative, but immediately recognizable by the white bar in its tail and its smaller size. I have seen only the specimen now described.

I have taken the liberty of naming this bird as a trifling tribute of respect to Mr. George Ord of this city, the Nestor of American naturalists, the early and constant friend and biographer of the great Alexander Wilson.

The Committee on Dr. Leidy's new species of Entozoa, reported in favor of publication in the Proceedings.

Descriptions of new species of Entozoa.

By Joseph Leidy, M. D.

1. Cucullanus roseus.—Body rose-red with whitish tips, translucent, cylindrical, robust, narrowed at the extremities; anteriorly obtuse; posteriorly acute. Mouth elongated, surrounded by a papillated lip, and enclosing a complex, corneous, yellow colored, apparatus. Œsophagus consisting of two portions: the first long, cylindrical; the second short, narrow, pyriform. Ventriculus broad, cylindrical. Anus very near the posterior end. Tail 1-5th of a line long.

Female.—Length 1 in. to 1½ in.; breadth 3-5ths of a line. Generative aperture 4 lines from the end of the tail. Ovaries two, white, very tortuous.

Male.—Length 6 to 10 lines: breadth ½ a line. Penis composed of two, white, curved, spiculæ, 4-5ths a line long, protruding close to the anal aperture.

Habitation.—I found 580 adult specimens and many thousand young of this species in the intestine of a Tortoise (Testudo) from Java. About one-fourth of the number were males.

2. Ascaris *Felis discoloris.*—Body yellowish-white, sub-cylindrical, with prominent longitudinal lines; posteriorly acute; anteriorly moderately narrowed with the extremity furnished with a narrow lateral alaform expansion undulated at the free edge. Mouth distinctly trilobed. Tail short; anus just anterior to the point of the latter.

Length 1 in. to 1½ in.; greatest breadth at the posterior third ½ a line; posterior to alaform expansion ¼ of a line; length of latter 1 line; greatest breadth at base 1-10th of a line. Annulations 1-570th in. wide.

Habitation.—Six females obtained from the small intestine of Felis discolor.

3. Spiroptera *Didelphidis virginianæ.*—Body whitish, cylindrical; anteriorly narrowed, sub-acute; posteriorly curved, acute, furnished with a broad, inflated, lateral, alaform expansion of the integument, pierced on each side of the body with five minute respiratory tubes opening at the free edge of the expansion. Integument on the ventral surface, between the lateral expansions, presenting a

number of elevated, longitudinal, moderately tortuous, papillated, linear ridges. Mouth small, round. Œsophagus long, cylindrical. Intestine simple, tortuous. Anus small, oval, situated about half the length of the alary expansion, from the posterior end.

Length 11 lines; breadth 3-5ths of a line. Transverse striæ of integument 1-650th in. wide. Œsophagus 2½ lines long; 1-5th of a line broad.

Habitation.—The description is taken from two males found within the stomach of Didelphis virginiana.

4. Spiroptera *Scalopis canadensis.*—Body whitish, cylindrical; anteriorly attenuated; posteriorly re-curved, furnished at the extremity with a lateral dilated alary expansion, containing four minute respiratory tubes, diverging from the position of the anus. Mouth small. Œsophagus cylindrical; Intestine moderately tortuous. Anus about half the length of the alary expansion from the posterior end.

Length 6 lines; breadth ½ of a line. Œsophagus ½ of a line long.

Habitation.—Description from a single male found in the stomach of Scalops canadensis.

5. Echinorynchus socialis.—Body white, cylindrical, with a dilatation of the anterior fifth; narrowed posteriorly, with a white spiral band passing around the whole length, and giving the appearance of transverse annulations. Proboscis moderately long, cylindrical, with twenty-six transverse rows of simple re-curved hooklets, sixteen in each row.

Male furnished with a posterior vesicular appendage.

Length from ½ an in. to 2 in. 4 lines; breadth of larger individuals anteriorly, ¾ of a line; posteriorly 2-5ths of a line.

Habitation.—Found frequently in considerable numbers in the intestine of Platessa plana.

The Committee, to whom the paper of Dr. Berlandier, read to the Academy Feb. 11th, 1851, describing two species of Mexican wolves, was referred, reported:

That after a careful examination, they are satisfied that the first, the Canis Mexicanus of Desmarest, No. 297, and the Lupus Mexicanus of Col. Hamilton Smith, Vol. 9th, Mammalia Nat. Lib., though heretofore considered by Richardson and others as a variety of the common wolf, Lupus occidentalis, is yet, from its peculiarly marked form, entitled to be considered a distinct species. As this wolf has been described and figured in the work referred to, it would only be unnecessarily multiplying its synonyms to publish a new name for it, unless stronger reasons be given than exist in the present case. The second is unquestionably the one described by Dr. Woodhouse, under the name of Canis frustror, in a paper read to the Academy, Jan. 7th, 1851, and directed to be published in the Proceedings and in the Journal of the Academy. The same objection, the unnecessary multiplication of synonyms, also applies to the publication of the name given by Dr. Berlandier to this wolf. Although Dr. Woodhouse is entitled by priority of publication to the right of giving the specific name, yet the Committee feel unwilling to report against the publication of this part of the paper, especially as it strongly corroborates the views expressed by them in the remarks made on the Canis frustror. Considering the description of the first also as important in establishing the claim of the Lupus Mexicanus to be ranked as a distinct species, and not as a variety, the Committee would recommend the publication of the translation of the paper of Dr. Berlandier, *omitting the specific names given by him*, in the Proceedings of the Academy.

CANIS MEXICANUS, *Desm.* 297.

Head elongated, reddish-grey, with a blackish band upon the forehead, not distinctly defined; *ears* reddish, a little darker upon the anterior margin; *back* mixture of ashy-grey; dirty red and blackish bands, which extend a little upon the flanks; a mane; *abdomen* dirty light-red; *tail* reddish, black above, very much tufted, and terminated by black hairs, not pendulous.

It inhabits almost the whole of Mexico, and is common in desert localities, particularly in the shore regions of the Gulf of Mexico. It is found also upon the central plateau.

It is as susceptible of being tamed as a dog; (those which I have raised were very good as watch dogs) it lives on good terms with the domestic animals. It howls principally at night when the weather is about to change. This wolf is celebrated for his cunning, his vivacity and his habits. All the inhabitants bestow upon him in a high degree these first qualities.

Total length from the end of the nose to the extremity of the tail, 4 feet 6 inches French. Height at the shoulder 1 foot 5 inches.

CANIS FRUSTROR, *Woodhouse.*

Size of the common fox, (Canis vulpes) or a little larger; reddish-grey; a blackish-grey mane along the back, shaded with black upon the shoulders; ears cinnamon-red; anterior feet red, in front blackish; extremity of the tail blackish.

Inhabits all the plains, more or less wooded, of Tamaulipas, New-Leon, Coahuila, and of Texas; is again found in greater or less abundance throughout the whole of Mexico, and perhaps also in the greater part of North America.

It is susceptible of being tamed, but preserves a distrustful character. It does not howl like the wolf, and its cry is rather a yelping bark, which is heard in the evening and also early in the morning.

Total length fram the end of the nose to the extremity of the tail 3 feet 4 inches French. Height of the shoulder 1 foot 1 inch.

Mammal very cowardly, but also perhaps the most cunning.

The Corresponding Secretary read his Monthly Report which was adopted.

The Auditors reported that they had examined the Report of the Treasurer for 1850, and had found it correct.

ELECTION.

The following were elected *Correspondents* of the Academy. Mr. W. Heidinger, President of the Imperial Geological Society at Vienna; Baron Von Hauer, of Vienna; Prof. Joseph Hyrtl, of Vienna; Dr. C. M. Deising, of Vienna; and Mr. Charles Girard, of Washington, D. C.

DONATIONS TO MUSEUM

In January and February, 1851.

January 7th.

A large collection of American Reptilia, Fishes, Insects, and Tortoises, in spirits and dried, formerly belonging to Dr. Jacob Green of Philadelphia. Presented by Prof. Franklin Bache.

Four fossil vertebræ, fragments of a fossil Cephalopod from the cretaceous series of Alabama; bird tracks and rain drops in the newer red sandstone, from Princeton, New Jersey; and specimens of coal fossils. Presented by Mr. Joseph Jones.

Numerous fine specimens of crystallized Mica, from Chester Co., Pennsylvania. Presented by Dr. Wm. D. Hartman.

Fossil Ostrea, from Uraguay. From Dr. Bond.

January 14th.

A small collection of minerals, shells, and fossils: Snout of Xiphius gladius: scull of Chelonia midas. Presented by the Southwark Library Company of Philadelphia.

Six specimens of shells, from Newport, R. I.; four do. rocks, from do. Specimens of recent wood in process of carbonization: two specimens, variety of Indian corn. Presented by Mr. Samuel Powel.

Four saurians, and eight ophidians, from South Africa. Presented by Dr. Gavin Watson.

January 21st.

Twenty specimens coal fossils; curious specimen of honey-comb rock, or cellular sandstone; from Connellsville, Pennsylvania. Deposited by Mr. Joseph Jones.

Specimen of Mud from the mud volcanoes, near Carthagena, New Grenada, South America. Presented by Mr. J. C. Trautwine.

Three Indian relics; fossil Helix. Presented by Southwark Library Company.

Three species crustacea, Newport R. I. Coal with quartz. Presented by Mr. S. Powel.

Two Gold fishes. Presented by Mr. Bisset.

February 4th.

An extensive collection of crustacea from various localities, being part of the collection of M. Guerin, of Paris, containing 230 species and 614 specimens. Presented by Dr. T. B. Wilson.

Eggs of Tinamus ——, from New Grenada; Thalassidroma Bulwerii, Madeira; Phalacrocorax carboides and Sericornis frontalis, Australia; Platycercus Novæ Zealandiæ, New Zealand; Malurus Lamberti, Eopsaltria australis, Pitta strepitans and Tropidorhynchus corniculatus, Australia. From Dr. Wilson.

Donax protracta, Venus intapurpurea, Pecten fuscopurpureus, from Florida, Spondylus, nov. sp., New Jersey; Triton subalveatum, Calavella vicksburgensis Corbula alta, Fulgur nodulatum, and Natica Mississippiensis, from Vicksburg. Presented by Mr. T. A. Conrad.

Four species of Fossil Echini from Georgia. Presented by Mr. J. H. Couper.

Egg of African Ostrich, skin of Penguin, and Porcupine quills, from Cape of Good Hope. Presented by Dr. J. Dawson.

Fragment (456 grains) of a Meteorolite which fell in Cabarras Co., N. Carolina From Prof. Sheppard, of Charleston, in exchange.

Four very fine specimens of a fossil Ostrea from California. Deposited by Prof. Frazer.

Cranium of a Dijak woman of Borneo, received from Mr. W. A. Gliddon by Dr. Morton, and deposited by the latter.

February 11th.

Six fragments, and three casts of Dipleura pomàlonotus, six specimens of Pleurotomaria, three of Loxonema, and three Silurian fossil shells, from the Hamilton Group, Cazenovia, N. Y.; Goniatites, Onondaga Co., N. Y.; three specimens of Atrypa prisca and three of A. culioides, from Madison Co., N. Y. Presented by Mr. Ledyard Linklaen.

Phalæna odora, Lin. from the vicinity of Philadelphia, (a rare species in this locality). From Mr. John McIlvaine, of Blockley.

Shark's tooth from the Marl of New Jersey. From Mr. Powel.

February 18th.

Very fine specimen of Exogyra costata. From Mr. Harback, through Dr. Spackman.

Skins of Albatross, giant Petrel, Cape Pigeons, Owl; and seeds of Cherimoya and Mango. Presented by Dr. G. R. B. Horner, U. S. N.

Antlers of Cervus virginianus. From Mr. T. Fisher.

Spongia ———; from the Atlantic Ocean. From Mr. Wood.

Calcareous Tufa, from Mr. Teublin, of Illinois.

Siliceous oxide of Zinc, from Lehigh Co., Pennsylvania. From Mr. John Cooke.

Naucrates Echireis, in spirits. From Dr. T. C. Dunn, of Newport, R. I. through Dr. Morton.

DONATIONS TO LIBRARY

In January and February, 1851.

January 7th.

Proceedings of the American Philosophical Society, vol. 5, No. 45, April to December, 1850. From the Society.

Catalogue of the Marginellidæ in the collection of John H. Redfield, January 1, 1851. From the author.

Contributions to Helminthology. By Joseph Leidy, M. D. From the author.

Letter to the Rev. Dr. Bachman, on the question of Hybridity in animals, considered in reference to the question of the Unity of the Human Race. By S. G. Morton, M. D. From the author.

Additional observations on hybridity in animals, and on some collateral subjects: being a reply to the objections of the Rev. John Bachman, D. D. By S. G. Morton, M. D. From the author.

Notes on Hybridity, designed as a supplement to the Memoir on that subject. By S. G. Morton, M. D. From the author.

Annales des Mines. 4me. serie, tome 17, liv. 3 de 1850. From l'Ecole des Mines.

Bibliotheca Botanica, sive catalogus auctorum et librorum omnium qui de re botanica, de re rustica, &c. &c., tractant. A Joanne F. Seguierio Nemausense digessus. 4to. 1740. From Mr. George Ord.

Fourth Annual Report of the Regents of the Smithsonian Institution. From the Institution.

The following were presented by Mr. Edward Wilson, of Pembrokeshire, Wales, on the usual condition:

Outlines of Human Osteology. By F. O. Ward. 16mo.

Jocko: episode détaché des lettres inédites sur l'instinct des animaux. Par Charles Pougens. 3d ed. 12mo.

rtation physique à l'occasion du negre blanc. 8vo.
ge au Mont Pilat. 8vo.
eau voyage fait au Peron. Par l'Abbe de la Blanchardiere. 8vo.
nnæi Olandska och Gothlandska Resa. 8vo.
ur throughout the whole of France. By John Barnes. 8vo.
citationes de generatione animalium. Auctore Gulielmo Harveo. 12mo.
ima Brutorum. Auctore T. Willis, M. D. 12mo.
ges physiques dans le Pyréneés en 1788 et 1789. Par Francois Pasumot.

sselquists, M. D. Iter Palestinum, eller Resa til Heliga Landet förättad
r 1749 til 1752. Utgifven af Carl Linnæus. 8vo.
iological lectures addressed to the College of Surgeons. By John Aber-
8vo.
riences sur l'accroissement continué et la reproduction des dents chez les
&c. Par J. E. Oudet.
ge en Norwége. Traduit de l'Allemand de J. C. Fabricius. 8vo.
é de la culture du Nopal et de l'education de la Cochinelle dans les colo-
ançaises de l'Amerique. Par M. Thiery de Menonville. 8vo.
tin d'Histoire naturelle de France, publié par M. Nérée Boubée. Nos.
8vo.
les générales des Sciences physiques. Par MM. Bory St. Vincent, Drapiez
Mons. 8 vols. in 4. 8vo.
oires de la Société des Sciences naturelles de Seine-et-Oise de 1842 a 1849.
8vo.
oires de la Société des lettres, Sciences, &c., de Metz. Ans. 3—9. 7 vols.

les de la Société Entomologique de France. Tome 4. 8vo.
oires de l'Académie Royale de Metz. Ans. 10—30. 22 vols. 8vo.
rt of Proceedings on a voyage to the Northern Ports of China, in the Ship
mherst. 8vo. 2 vols.
logue raisonné des objets de Zoologie recueillis dans un voyage au Caucase
n' aux frontiers actuelles de la Perse. Par E. Menétries. 4to.
i sur les variétiés de la couleur des Hommes. Par Bernard Campan de
elier.
äge zur Anatomie der Insekten, Von A. M. Gaade.
erches pour servir à l'histoire et à l'anatomie des Phryganides. Par F. I.
4to.

January 14th.

ory and description of the different varieties of the Pansey now in cultiva-
the British Gardens. By J. Sinclair and J. Freeman. 8vo.
oire des Mollusques terrestres et fluiviatiles vivants dans les Pyrénées
ntales. Par C. Mermet. 8vo.
uel du Bouvier. Par Joseph Robinet. 2 vols. 8vo.
oire de l'introduction des Moutons à laine fine d'Espagne dans les divers
e l'Europe et au Cape de Bonne Espérance. Par C. P. Lasteyrie. 8vo.
ons in shells as given to children between the ages of 8 and 10, in a Pestal-
School at Cheam Surrey. 3d ed. 8vo.
e de Lorraine. Par le Dr. D. A. Godron. 3 vols. 8vo.
logue les Coquilles de l'Ile de Corse. 8vo.
relle Flore de la Moselle. Par J. Hollandre. 12mo.
le analytique pour faciliter l'etude des plantes dans le nouvelle Flore du
ement de la Moselle. 12mo.
re à M. Moquin-Tendon sur quelques Mollusques terrestres et fluviatiles.
. Paul de Reynies.
actical exposition of the Cantelonean System of hatching eggs and rearing
r by Hydro-incubation. 3d edition. By Wm. J. Cantelo.
oire sur les Cyclostomes. Par L. Partiot.
ervations critiques sur l'inflorescence considérée comme base d'un ar-
ent methodique des especes du genre Silene. Par M. Godron.

Tableau des Champignons observés dans les environs de Metz. Par MM. Fournel et Haro. 1me. memoire.

Gnaphalium neglectum, nouvelle espéce du groupe des Filaginées, &c. Par H. F. Soyer-Willemet.

Revue des Treflés de la Section Chronosemium. Par MM. Soyer Willemet et Godron.

Observationes sur quelques Plantes Lorraines. Par D. A. Godron.

De l'origine des Cordons placentaires dans la famille des Légumineuses. Par M. Godron.

Essai sur les Renoncules à fruits ridés transversalement. Par. M. Godron.

Monagraphie des Rubus qui croissent naturellement aux environs de Nancy. Par M. Godron.

A series of letters on Agricultural improvement. By John J. Mechi.

Die Heliceen, nach natürlichen verwandtschaft systematisch geordnet von J. Christ. Albers. 8vo.

Die Conchylien in Cabinette des Hernn Erbprinzen von Schwarzburg Rudolstadt. 8vo.

Riley's index to the British Land and Fresh water shells.

Atlas des Mollusques. 12mo.

La Cochliopérie: recueil d'expériences tres curieuses sur les helices terrestres vulgairement nommés Escargots. Par George Tarenne.

The Conchologist's Companion. By the author of Select Female Biography, &c. 12mo.

Traité sur la culture des Muriers blancs, la maniére d'elever les vers-a-soie, et l'usage qu'on doit faire des cocons. Par. M. Pomier. 8vo.

Godofredi Sellii historia naturalis Teredinis seu Xylophagi marini, tubulo-conchoidis speciatim Belgici. 4to.

Histoire d'un insecte qui devore les grains de l'Angoumois. Par MM. Duhamel du Monceau et Tillet. 12mo.

F. Chr. Lesser's Testaceo-Theologia. 8vo.

The Gardener's Pocket Journal. By J. Abercrombie. 8th ed. 8vo.

Gardening for Ladies. By William Loudon. 4th edition.

Elémens de l'art vétérinaire. Traité de la conformation extérieure du cheval. Par Cl. Bourgelat. 7me. ed.

The Suburban Gardener and Villa Companion. By J. C. Loudon. 8vo.

The English Gardener. By W. Cobbett. 8vo.

An account of a new Zoophyte from Greenland, in a letter to Dr. Haller, by C. Mylius. Translated into English. 8vo.

British Husbandry. 3 vols. 8vo.

Jnnuary 21st.

Journal of the Franklin Institute, for December, 1850. From Dr. Wilson.

Boston Journal of Natural History. Vol 6, No. 2. From Boston Soc. of Nat. Hist.

Rapport sur l'empoissonnement des Riviérés. Par M. Milne Edwards. From Dr. Leidy.

Contributions to Conchology. No. 8. By C. B. Adams. From the author.

The Song of the Sea-Shell, and other poems. By Thomas Fisher. 8vo. From the author.

The following were presented by Mr. Edward Wilson on the usual condition:

The History of the Dog. By W. L. C. Martin. 12mo.

The History of the Horse. By. W. L. C. Martin. 12mo.

The elephant, principally viewed in relation to man. New edition. By W. C. Martin. 12mo.

Die jezt lebenden Entomologen kerffreunde und kerfsammler Europàs und der übrigen Continente. Von J. Gistl. 12mo.

Leçons élementaires d'histoire naturelle, á l'usage des enfans. Par. M. Cotte. 2d edition. 12 mo.

An essay upon the Silkworm. By Henry Barham, Esq. 8vo.

Cours abrége d'histoire naturelle. Par M. Wandelaincourt. 12mo.

Traité de l'education des animaux domestiques. 2 vols. 12mo.

Index testaceologicus. By W. Wood. 8vo.

An essay on the Mines of England. By George Abbott, Jr. 8vo.

De l'accroissement continu des incisives chez les Rongeurs et de leur reproduction, considerée sous le rapport de leur application á l'etude de l'anatomie comparative des Dents. Par J. E. Oudet.

Melanges d'histoire naturelle de physique et de chimie. Par M. Th***. 8vo. 3 vols.

Zootomia democritæa: opus Marci Aurelii Severini. 4to.

Dissertationes de admirandis mundi cataractis supra et sub-terraneis, &c. Auctore M. J. Herbinio. 4to.

Histoire naturelle de l'Eperlan de la Seine inférieure. Par S. B. J. Noel. 8vo.

Le Porte-Feuille des Enfans. Rédige par une Société d'amateurs. 4to.

Notice historique sur une importation de six cents merinos extraits d'Espagne en 1808. Par M. Poyféré de Cére. 8vo.

Traité succinct sur les Abeilles. Par M. Cagniard. 8vo.

Naumannia. Archiv fur die Ornithologie vorzugsweise Europás. Von Eduard Baldamus. Nos. 1 and 2. 8vo.

Linnæa Entomologica: Von dem Entomologischen Vereine in Stettin. Vols. 1—4.

Essai sur la Géographie physique, la climat et l'histoire naturelle du Département du Doubs. Par Girod Chantrans. 2 vols. 8vo.

Voyage Mineralogique fait en Hongrie et en Transilvanie. Par M. de Born; traduit de l'Allemand. 12mo.

Dissertatio hydrologica de Fontibus et Fluminibus. Auctore P. Alexio M. Plasch. 12mo.

De origine des Fontaines. 12mo.

Histoire du Mont Vésuve. Par M. Duperron de Castera. 12mo.

An introduction to the study of Birds, or the elements of Ornithology on scientific principles. 12mo.

Continuation de la Lithogéognosie pyrotechnique. Par J. H. Pott. 12mo.

The Ornithological Guide. By Charles T. Wood. 8vo.

Notionaire ou memorial raisonné de ce qu'il y a d'utilité, et d'interessant dans les connoissances acquises depuis la création du Monde jusqu' à present. Par M. de Garsault. 8vo. 1761.

Elementa Metallurgiæ speciatim chemicæ conscripta à J. G. Wallerio. 8vo.

Mémoires sur l'education des Vers-a-Soie. Par M. l'Abbe Boissier de Sauvages. 8vo.

Tableau historique de la Péche de la Baleine. Par S. B. J. Noel. 8vo.

Voyage souterrain, ou description du Plateau de St Pierre de Maestricht et de ses vastes cryptes. Par le Col. Bory de St. Vincent. 8vo.

Allgemeine Naturgeschichte der Schildkröten nebst einem systematischen Verzeichnisse der einzelnen Arten mit zwei Kupfern. Von J. G. Schneider. 8vo.

Verzeichniss der Käfer Preussens. Entworfen von J. G. Kugelann. Ausgearbeitet von J. K. W. Illiger. 8vo.

Tableau des Pyrénées Francaises. Par M. Arbanére. 2 vols. 8vo.

Voyage fait en 1787 et 1788 dans la ci-devant Haute et Basse Auvergne. Par M. Legrand. 3 vols. 8vo.

Librorum impressorum qui in Museo Britannico adservantur catalogus. 7 vols. in 8. 8vo.

Lettres minéralogiques et géologiques sur les Volcans de l'Auvergne. Par La Coste. 8vo.

Geschichte der Schöpfung. Von Hermann Burmeister. 8vo.

Nouveau traité sur la laine et sur les moutons. Par MM. Le Conte Perrault de Jotems et F. Girod. 8vo.

Della Pietre antiche libri quattro di Faustini Corsi Romano. 8vo.

Histoire naturelle abrégée du ciel, de l'air et de la terre, ou notions de physique générale. Par Philibert. 8vo.

Georgii Martinii, M. D., de similibus animalibus et animalium calore libri duo. 8vo.

February 4th.

Annales des Mines. 4me. serie, tome 17, liv. 4me. de 1850. From l'Ecole des Mines.

Forhandlinger ved de Skandinaviska Naturforskeres femte mode der holdtes i Kiobenhavn fra den 12 til den 17 Julie 1847. 8vo. From the Association.

Floræ Capensis Medicæ Prodromus. By L. Rappe, M. D. From Dr. J. Dawson.

Report of the Horticultural exhibition held in Salem Massachusetts, under the direction of the Essex Institute. Sept. 25 and 26, 1850. From the Institute.

The American Journal of Science and Arts. Vol. 50. General index to 49 vols. 8vo. From the Editors.

Histoire physique, &c., de l'Ile de Cuba. Par M. Ramon de la Sagra. Livs. 55 et 56. From Messrs. Vaux, Elwyn, Clay, Wetherill and Carpenter.

The following were presented by Mr. Edward Wilson on the usual condition:

Lettre sur le Valais. Par M. Echasseriaux.

Voyage aux Iles de Lipari fait en 1781.

Introduction au rapport fait a l'Academie Royale des Sciences sur le voyage a l'Isle Julia en 1831 et 1832. Par M. Constant Prevost.

De l'incubation artificielle. Par un ancien administrateur.

Brevi e succinte notizie di storia naturale e civile dell'Isola d'Ischia del Dott. D. Francesco de Siano.

Nouvelle description de ce qu'il y a de remarquable a la Menagerie et au cabinet d'histoire naturelle du Jardin du Roi.

Discours œconomique non moins utile que recreatif, &c. Par M. Prudent de Choyselat, 1612.

Observationes sur l'art de faire eclore et d'elever la volaille sans le secours des Poules. Par M. Bonnemain.

Relation des événemens mémorables arrivés dans l'exploitation de Houille de Beaujonc, pres de Liege, le 28 Feb., 1812, &c.

Essai d'une explication géologique de la station apparente du soleil et de la lune a l'ordre de Josué. Par W. Van den Hull.

De sinu rhomboidali in medulla spinali avium. Auctore Edvinus A. Hay.

Geognostische Bemerkungen über Karlsbad von K. E. A. von Hoff.

Observations sur la formation des Montagnes, &c. Par P. S. Pallas.

A catalogue of extraneous fossils animal and vegetable, minerals, &c., in the possession of the Rev. Peter Hawker.

Elements of Zoology. By Wm. Rhind. 8vo.

M. T. Brunnichii Ornithologia Borealis. 8vo.

Descrizione dell'ultima eruzione del Monte Vesuvio de 19 Ottobre, 1767. 8vo.

Traité curieux sur les cataclysmes ou deluges, les revolutions du globe, le principe sexuel, et la generatione des mineraux. A M. Ferd. Mazzanti.

Notice sur les Chévres Asiatiques a Duvet de Cachemire. Par M. Polonceau.

Mineralogical nomenclature. By Thos. Allan. 8vo.

Recherches sur le mouvement des ondes. Par M. N. Th. Bremontier. 8vo.

L'Homme rival de la nature; ou l'art de donner l'existence aux oiseaux et principallement a la volaille par le moyen d'une chaleur artificielle. 8vo.

Nouvelle construction de Ruches de bois, avec la façon d'y gouverner les abeilles, inventée par M. Patteau. Par M. ***. 12mo.

Traité de l'education économique des Abeilles. Par M. Ducarne de Blangy. 12mo.

Memoire sur la Vallée de Lacs de Natron et celle du fleuve sans eau d'apres la reconnaissance faite par le Gen. Andréossi. 4to.

Traité des Tourbes combustibles. Par Ch. Patin. 4to.

Onomasticon du systéme d'Oryctognosie. Par le Prof. Gott. Fischer. 4to.

Francisci Bousseti de natura Aquatilium carmen. 4to. 1558.

De Thermis Carolinis commentatio. Auctore J. G. Bergero. 4to.

A catalogue of the Library of the Royal Institution of Great Britain. 2d edition. 8vo.

Essais sur divers sujets de physique, de Botanique, et de Mineralogie. Par Charles Pougens.

Catalogue des livres composant la Bibliotheque du feu M. H. de Blainville. 8vo.

The daily progress, and extraordinary appearance of the chick in the egg, and the changes which take place during hatching in the steam apparatus invented by J. G. Barlow.

Observations pour servir à l'histoire naturelle et civile de la Vallée d'Aspe, &c. Par M. Palasow. 8vo.

Zur Vergleichenden Physiologie der Wirbellosen Thiere. Von Dr. Carl Schmidt.

Histoire du Lion de la Ménagerie du Museum d'Hist. Nat., et de son chien. Par G. Toscan.

Les singularites de la Nature. Par un Académician de Londres.

Du déplacement des Mers.

Traité pratique sur l'education des Abeilles. Par Stanislaus Beaumier. 8vo.

De Metallicis libri tres Andrea Cæsalpino Aretino. 8vo.

Renseignements donnes par M. Desplanques jeune à l'Agriculture. Sur la production des laines.

Lettre a M. Jurine sur le Puy Chopine. Par M. Louis de Laizer.

Notice sur la formation d'une établissement modéle ayant pour objet l'incubation artificielle et la premiere education des Poulets sous la direction du Sieur Borne.

Notice physique et géognostique sur la Vallée de la Haute Ardeche.

Instruction pour la multiplication des Abeilles dans le Département de l'Indre. Par M. Chalumeau.

Projet d'ouverture et d'exploration de Minieres et Mines d'or, et d'autres métaux aux environs du Cèzé, du Gardon, et d'autres riviéres du Languedoc. Par l'Abbe de Gua dé Malves.

Mémoire sur une education de Vers a soie. Par M. Bonafous. 3me. edition.

Lettre a M. le Comte de Rambuteau sur le degré de probabilités ou le chance de success d'une puit Artésien modéle pres de Mason. Par M. Hericart de Thury.

Ueber Schädelbildung zur festern Begrundung der Menschenrassen. Von Prof. Dr. Aug. Zeune.

De anima Brutorum commentaria. 8vo.

A descriptive catalogue of some of the curiosities in the Ledstone Museum. By the Rev. G. Dodds. 4to.

La Orittografia del Monte Coiron di Giuseppe Marzari-Pencati. 8vo.

Von den Seepolypengehausen aus dem Franzosischen des Hernn J. E. Roques de Maumont. 8vo.

February 11*th*.

The following were presented by Mr. George Ord on the usual condition:

Histoire naturelle des Oiseaux de l'Amerique Septentrionale. Par M. L. P. Vieillot. 2 vols. in 1, folio. (coloured plates.)

An historical account of Testaceological writers. By W. Geo. Maton, M. D., and the Rev. Thomas Rackett.

Histoire des Plantes de l'Europe et des plus usitées qui viennent d'Asie, d'Afrique et d'Amerique. 2 vols. 12mo.

British Zoology. By Thomas Pennant. 4th edition. 4 vols. 8vo.

Elements of Conchology, according to the Linnean System. By the Rev. E. J. Burrow. 8vo.

Traité du Rossignol. 12mo.

Rapport Historique sur le progres des sciences naturelles depuis 1789, et sur l'etat actuel. Redigé par M. Cuvier. Nouv. ed. 8vo.

The Philosophy of Zoology. By J. Fleming, D. D. 2 vols. 8vo.

Tableau élémentaire de l'histoire naturelle des animaux. Par G. Cuvier. 8vo.

Werner's nomenclature of colors, with additions. By Patrick Syme. 8vo.

Aviceptologie Française, ou traité générale de toutes les ruses dont on peut se servir pour prendre les oiseaux qui sont en France. Par M. Bulliard. 8vo.

Sketch of the life of Alexander Wilson. By George Ord. 8vo.

A general view of the writings of Linnæus. By Richard Pulteney, M. D. 8vo.

Essays on the Microscope. By the late George Adams. 2d. ed. 4to.

The following were presented by Mr. Edward Wilson, on the usual condition:

Dissertatio academica in qua Aves Paradisiacas. Auctore N. Bonenberg Luneburgensis.

The English Apiary: or the complete Bee-master. By John Gedde, Esquire. 12mo.

Sketches of Tenby and its neighborhood. By Fanny Price Gwynné. 12mo.

Le Monde Naissant, ou la creation du monde, démonstrée par des principes tres simples et tres conformes a l'histoire de Moyse. 12mo.

Memoire sur la cause des tremblemens de terre. Par M. Thomas.

Traité de la verité des causes et effects des divers cours, mouvements, flux et reflux, et saleure de la Mer Oceane, &c. Par M. Claude Duret. 12mo.

Traité du flux et reflux de la Mer. Par le R. P. D. Jacques Alexandre. 12mo.

Synopsis of the contents of the British Museum. 56th ed. 12mo.

Le XII Pietre Pretiose, le quali per ordine di Dio nella santa legge, adornauano i vestimenti del sommo Sacerdote, &c. &c. Di Andrea Bacci. 4to.

Mémoire sur les fourmis des Cannes a sucre. Par M. de Barry.

De Renum Succenturiatorum in Mammalibus structura penitiore. Auctore Mauritius Nagel.

Histoire de la Laponie. Traduite du Latin de M. Scheffer par L. P. A. L. 4to.

T. Cornelii Consentini Progymnasmata physica. 4to.

De la reproduction considerée dans l'animal et le végétal. Par Etienne Maniéres.

Mémoire sur l'interieur de l'Afrique. Par Jérome Lalande.

An account of the Pearl fisheries of Ceylon. By James Steuart. 4to.

D. Christoph Gottwaldts physikalisch-anatomische Bemerkungen uber den Fiber.

Vorstellung einiger merkwurdigen Versteinerungen mit kurzen Anmerkungen versehen von D. Cas. Cristoph Schmeidel.

Mémoire sur les questions proposés par la Soc. d'Ag., &c. de Bologne sur mer concernant les recherches enterprises á differentes epoques dans le Department du Pas de Calais pour y decouvrir de nouvelles mines de Houille. Par M. F. Garnier.

A voyage to the Cape of Good Hope, &c., from the year 1772 to 1776. By Andrew Sparman, M. D. 2 vols. in one. 4to.

Des derniers révolutions du globe. Par M. L. Castilhon. 8vo.

Mémoire et journal d'observations et d'experiences sur les moyens de guaranter les Olives de la piquers des insectes. Par M. Sieuve de Marseille. 8vo.

An attempt to establish a pure scientific system of mineralogy by the application of the electro-chemical theory and the chemical proportions. By J. J. Berzelius, M. D. Translated from the Swedish by John Black. 8vo.

Hydrogéologie. Par J. B. Lamarck. 8vo.

Mémoire sur les Trappes et les Roches Volcaniques. Par M. Barral.

The Art of Taxidermy. By Peter Boswell.

Dr. Wilson presented the following, on the usual condition:

Journal of the Franklin Institute. 3d series, Vol. 21, No. 1.

Revue et Magasin de Zoologie. No. 9, 1850.

London Athenæum for Oct., Nov. and Dec., 1850.

Comptes rendus. Nos. 11—19, tome 31, et index du tome 30.

Archiv für Naturgeschichte. Von F. A. Wiegmann. Herausgeg. von Dr. Troschel. No. 5, 1849, No. 1. 1850.

February 18th.

Annales des Mines. 4me. serie. Liv. v. de 1850. From L'Ecole des Mines.

Medical topography of Brazil and Uraguay. By G. R. B. Horner, M. D. 8vo. From the Author.

Journal of the Franklin Institute, Feb. 1851. From Dr. Wilson.

The following were presented by Mr. Edward Wilson, on the usual condition:

A treatise on the production of early swarms of Bees by artificial means. By E. Scudamore, M. D. 12mo.

Moyens surs et faciles de detruire les punaises.

Ensayo sobre el origen progresos y estado de la historia natural entre las antiquos anteriores a Plinoi. Por Jos. Cornede Saavedra. 12mo.

Precis historique de la ville de Messina, de la Sicile, &c. 12mo.

Untersuchungen uber die naturparasitischen Geschwülste über den Mark-und Blutschwamm. Von F. J. F. Meyen. 12mo.

Relation du Groenland. 8vo.

A compendious account of the whole art of breeding, nursing, &c., of the Silkworm.

F. M. Ascherson, M. D., de Fistulis Colli congenitis, &c.

Portrait de la Puce en grand.

Sur la Peche de la Morue. Par M. Frammery.

Le vray et methodique cours de la physique resolutive, vulgairement dite Chymie, pour connoistre la Theotechnie ergocosmique, &c. Par A. Barlet. 4to.

Lithographiæ Wirceburgensis specimen primum. Auctore G. L. Hueber. Folio.

Mémoire de Botanique. Mémoire de Geologie. Thèses par F. M. Barneoud. 4to.

Essai sur la theorie des Torrens et des Rivieres. Par M. Faber, 4to.

Report from the Select Committee (Parliament) on public libraries. Folio.

Histoire naturelle des deux Elephans du Museum de Paris. Par M. Houel. Folio.

Observations de M. de Trébe sur l'interieur des Montagnes, &c. Folio.

Cartes en couleur des lieux sujets aux tremblemens de terre. Par M. Gautier. Folio.

Synoptic tables of Zoology. Translated from the French of G. Cuvier by W. Ross. Folio.

On the Oreston Caves near Plymouth. By Joseph Cottle.

Sammlung von Nestern und Eiern verscheidenen Vögel aus den Cabineten des Hrn. G. H. Schmidels, &c. Folio.

Om Hestekiods-Spiisning. Af Dr. Viborg.

Le tableau des calamities ou description de l'extinction de Lisbonne par les tremblemens de terre, &c. 1776.

Essai sur l'education des Vers à soie. Par M. Boisseau.

Sur la meillieure méthode d'elever des Vers á soie. Par M. l'Abbé Reyre.

Sammlung von Mineralien, Felsarten, Petrefacten, &c., für Unterricht und Selbst-Belehrungs herausgeg. von Heidelberger Mineralien Comptoir.

Hypothese de la solidification du Globe terrestre. Par J. R. Jacquelin-Dubuisson.

Merveilles de l'interieur de la terre et de son origine. Par M. Tesseydre.

Rapport fait á l'Academie Royale des Sciences. Par M. le Baron Cuvier.

Programme d'un prix proposé par la Soc. Roy. d'Ag., &c., de Caen pour le meillieur memoire sur le moyen de detruire l'insecte connu sous le nom du Puceron lanigére.

Instruction sur les moyens les plus propres à assurer la propagation des Bétes á laine de race d'Espagne. Par F. H. Gilbert.

Le Mont Dore. Par M. de Montloisier.

Du Cantal, du Basalte, et des anciennes revolutions de la terre. Par M. de Montloisier.

Mon opinion sur la formation de Aérolithes. Par G. A. Marechal.

Memoires et observations d'agriculture et de météorologie. Par le Baron D'Hombres.

Instruction sur la maniere de conduire et gouverner les vaches laitiéres. Par MM. Chabert et Huzard.

Notice de l'ouvrage de Prudent le Choyselet sur les avantages que l'on peut retirer les poules. Par J. E. Huzard.

Observations d'un mineur sur le discours de M. Dugas des Varennes.

Seconde suite des observations sur la Monte et l'Agnelage. Troisiéme suite &c. Par M. Morel de Vinde.

Considerations nouvelles sur la maniére dont les riviéres etablissent leur lit. Par M. Bernard.

Ragionamenti sopra la varieta de i flussi et reflussi del Marè Oceano Occidentale. Por Nicolo Sagri. 4to.

Descrizione dell'èruzione del Vèsuvio 25 e 26 Dec. dell'anno 1812.

Observations sur les volcans de l'Auvergne. Par Lacoste. 8vo.

Historiske efterretninger om Hestekiödes Brug til Menneskeföde i Norden aldre og Nyere tider. Ved E. C. Werlauff.

Historia et meteorologia Incendii Ætnæi anni 1668 J. Alphoni Borelli. 4to.

Recherches sur le corps de Wolf chez les Mammiféres et les oiseaux. Par M. Coste.

Rapport de M. Brunet de la Grange 1841, sur l'industrie sericicole dans les Departments de Seine et Oise, des Deux Sevres, &c. &c.

Ornithologia Powszechna. Przez Hr. K. Tyzenhauza. 3 vols. 8vo.

Lettres sur l'histoire naturelle du Hareng. Par M. Noel.

Twelve unpublished Geological plates; and portraits of George Ransome, Lewenhoeck, Sir Ashton Lever, and Linnæus.

March 4th, 1851.

Dr. Morton, President, in the Chair.

Letters were read from the Secretary of the Smithsonian Institution, dated Washington, July 3d, 1851, and from the Librarian of the British Museum, dated Jan. 18th, 1851, severally acknowledging the receipt of late Nos. of the Proceedings of the Academy.

Also a letter from the Asiatic Society of Bengal, dated June 7th, 1850, acknowledging the receipt of Part 4, Vol. 1, new series of the Journal.

Dr. Morton offered some remarks on the Dikaj and other crania deposited by him this evening.

Mr. Cassin offered the following, which were unanimously agreed to:—

Whereas, This Society has recently sustained the loss of a distinguished and valued member, Dr. John K. Townsend, late of this city,

Resolved, That the acquirements of the late Dr. Townsend, and his zeal and enterprise as a scientific traveller, entitle him, in the opinion of this Society, to a high rank as a naturalist and explorer of the natural history of this country.

Resolved, That this Society hereby acknowledges with cheerfulness and gratitude its obligations to Dr. Townsend for many interesting and important contributions to its collections, especially of the Birds and Quadrupeds of Western America, and his valuable papers relative thereto published.

Resolved, That a copy of these Resolutions be communicated to the family of our deceased fellow member.

March 11th.

Vice President Bridges in the Chair.

A letter was read from the Corresponding Secretary of the Historical Society of Pennsylvania, dated March 10, 1851, transmitting a resolution which had been adopted by that Society to request of the Academy of Natural Sciences the deposit in their Library of the copy of the Paris "Moniteur" belonging to the Academy. Referred to the Library Committee.

March 18th.

Dr. Morton, President, in the Chair.

A circular was read, dated March 14th, 1851, from the Executors of the late Mrs. Elizabeth Stott, informing the Legatees that they were now prepared to discharge the payment of the legacies as soon as they were furnished with the refunding bonds. On motion, therefore,

Resolved, That the Treasurer, Geo. W. Carpenter, be authorized to receive from the Executors of the late Mrs. Stott the amount of her legacy to this Institution, and to execute the necessary bonds on payment of the same.

April 1st.

Vice President BRIDGES in the Chair.

Dr. Morton read a letter addressed to him, from Dr. Alfred T. King, dated Greensburg, Pa., March 17, 1851, on the subject of the anatomy and functions of the brain in the inferior animals.

Dr. Morton, referring to the crania deposited by him this evening, stated that the cranium of the mummy recently dissected by Mr. Gliddon was that of a female, and an Egyptian in every respect. An attempt had been made to preserve all the bones, but upon some of them having been wetted, they were entirely converted into a clay-like mass; the cranium had, however, escaped. One of the Tapajos Indian crania was curiously embalmed, in a manner peculiar to these people, who place several together in jars: the eyes are singularly represented, and the skull presents the peculiar roundness of the posterior portion which is common to this race. The cranium of the Guayacuru (a young female) was interesting from the great rarity of these crania.

The following, offered by Dr. Elwyn, was adopted :—

Whereas, Mr. George Ord has kindly consented, at the request of members of the Academy, to place at its disposal a portrait of himself now in his possession :

Resolved, That the Recording Secretary be directed to correspond with Mr. Ord on the subject, and to signify to him the gratification it would afford the Society to receive the portrait.

April 8th.

Vice President BRIDGES in the Chair.

Dr. Leidy exhibited three fragments of the inferior maxilla of a gigantic species of Palæotherium, to which in the last number of the Proceedings he had given the name P. Proutii, in honor of Dr. Hiram A. Prout, of St. Louis. By the latter gentleman they had been obligingly lent to him through Prof. Baird of the Smithsonian Institute. One of them had been described by Dr. Prout in Silliman's Journal, the others had been since obtained. Two of the fragments apparently belonged to the same individual, viz. : that described by Dr. Prout, being a portion of the left ramus, containing the seventh molar tooth nearly entire and the preceding teeth much mutilated ; and a part of the right ramus extending back to the angle containing three posterior molars mutilated. They correspond closely in appearance, age, and size. The third fragment is a much mutilated posterior molar of the right side, rather larger than the corresponding tooth of the above specimens. The posterior molar measures antero-posteriorly 4½ inches, the sixth molar 3½, and the fifth molar has been about 3½ inches. The angle of the jaw is eight inches behind the posterior molar. The lower jaw has been full two and a half feet long, and belonged to an animal three times the size of the Palæotherium magnum of Cuvier.

Prof. Baird has also sent three fossil Tortoises from the same locality, one of which Dr. Leidy believed to be a new genus.

Mr. Lea stated that he had examined the fossil bones of a *reptilian quadruped*, which Dr. J. Y. Shelley had sent to the Academy in Nov., 1847, from Upper Milford, Lehigh Co., Pa., on Hassac's Creek, a tributary to the Perkiomen. The notice of Dr. Shelley's donation, published in No. 7, Vol. 5, of the Proceedings, as part of the Annual Report of the Recording Secretary, had not met Mr. Lea's view until within a few days, it being there remarked, that these remains were from a formation probably anterior to the coal.

The great interest which attaches to all these sauroid remains, induced Mr. Lea to examine the specimens in the Cabinet of the Academy, when he was perfectly satisfied by the lithological characters of the matrix, and by the geographical position of the locality, that the epoch of the existence of this reptilian quadruped had been misapprehended. The matrix was found to be *carbonate of lime*, in the form of a conglomerate, and the locality near to the range of the trappean hills, known as the "Conewago Hills" in Pennsylvania, and as the Blue Mountains in Virginia. On the south of these intruded rocks, lies the formation known by the geologists of the United States, generally, as the *New Red Sandstone*, although Elie de Boumont, and Dr. Jackson, of Boston, are not of the opinion that it is the equivalent of the Trias or upper new red sandstone, or the Permian or lower new red sandstone of Europe. Certain it is, however, that this red sandstone formation, which stretches in a long and narrow band, from South Carolina to the Connecticut river, and exists probably at Truro in Nova Scotia, sometimes with considerable interruptions, has been found to contain the *foot prints* of numerous genera and species of birds, and of reptiles, as well as a large number of fishes. These have been chiefly observed on the Connecticut river. But until now there had not been found in this formation in the United States, so far as he knew, any *bones* of the animals which then inhabited its shores. It is well ascertained, that this calcareous conglomerate forms the upper portion of the so-called new red sandstone formation, and lies on its northern border, appearing at various points: in the N. E. part of New Jersey at Pompton, westwardly at Germantown in the same State, and it is found crossing the Delaware at Spring Mills about 15 miles below Easton. It is recognised at the locality, where these bones were found, in the S. E. corner of Lehigh county, and in the same line south-westward, below Reading, about one mile, where it exists in very large masses, the line of the Philadelphia and Reading railroad making a deep cut through it. It there exhibits its structure as a very coarse calcareous conglomerate of various colors. In the same direction it is found on the Potomac river, and is known there as the Potomac marble, of which the columns of the Halls of Congress are made.

Mr. Lea remarked that it was greatly to be regretted, that all the bones of this specimen had not been obtained, but it was due to Dr. Shelley to say that he arrested from destruction and handed over to scientific investigation, with a promptness that does him credit, what remained to be obtained. The rocks had been taken out for the purpose of making the bed of a turnpike road, and the bones now in possession of the Academy consist of several vertebræ, parts of ribs and two imperfect teeth, which certainly place this animal among the *Saurians*.

To these remains, so fortunately preserved, Mr. Lea proposes to give a mature examination, and the curators have placed them under his charge for that purpose. When prepared, a description and figures of the important portions of these bones will be submitted by him for publication in the Journal of the Academy.

Mr. Lea thought it better to adopt a specific name without delay, but deemed it advisable to postpone a generic one, until a further examination shall prove the diagnosis, and then apply a descriptive one. He proposes *Pennsylvanicus* as the specific name.

On leave granted, a memorial to the Legislature of Pennsylvania, praying for the passage of an act authorising the completion and publication of the final report of the Geological Survey of the State, was presented and read. On motion, the same was adopted, and a copy signed by the officers of the Academy was ordered to be transmitted to the Legislature now in session.

April 15*th.*

Vice President Bridges in the Chair.

A letter was read from the Royal Leopoldine Carolinian Academy of Naturalists, dated Breslau, Jan. 21st, 1851, acknowledging the receipt of late Nos. of the Proceedings.

A letter was read from J. S. Gossler, Esq., dated Harrisburg, April 11th, 1851, acknowledging the receipt of the memorial addressed to the Legislature by the Academy on the subject of the State Geological Survey; also another from the same, dated April 12th, 1851, announcing the passage of the law by both Houses authorising the publication of the Report.

Dr. Leidy presented for the inspection of the members a fossil Tortoise from Nebraska Territory, received through Prof. Baird of the Smithsonian Institution. The specimen consisted of four-fifths of the carapace and plastron, the former considerably crushed. In general form it is like the genus Emys. It has been about 7 inches in length, and about 5½ in breadth; its heighth is about 2½ inches. An interval of one-eighth of an inch between the costal and marginal plates has been filled with cartilage. The union in the middle line of the sternum from behind to the ento-sternal bone has also been cartilaginous. The outer extremities of the costal plates are alternately broad and narrow as in Testudo. The most remarkable peculiarity of the animal has been the possession of four accessory bones, which do not exist in other genera. These bones give additional support to the carapace. Two are placed anterior to the attachment of the sternum to the marginal plates, and two posterior. The anterior are nearly straight and quadrilateral, and pass, one upon each side, from the antero-external angle of the hyo-sternal bone obliquely upwards and inwards to a depression about the middle of the outer margin of the first costal plate. The posterior columns of support have nearly the same form as the anterior, and pass from the postero-external angle of the hypo-sternal bone upwards, backwards and a little inwards to a depression formed at the junction of the fifth and sixth costal plates. Dr. L. gave to this fossil the generic and specific name of Stylemys[*] nebrascensis.

April 22d.

Vice President Bridges in the Chair.

A letter was read from Mr. John Hooper, Secretary of the Brooklyn Institute, dated New York, Feb. 17th, 1851, accompanying a beautiful collection of native Algæ, (42 species,) presented by him to the Academy, and offering to contribute further if desirable.

Mr. Cassin read a paper intended for publication in the Proceedings, entitled "Notes of an Examination of the Birds composing the family Caprimulgidæ in the collection of the Acad. Nat. Sciences;" which was referred to Dr. Wilson, Dr. Watson and Dr. Ruschenberger.

Dr. Leidy called the attention of the members to two fossil Tortoises from Nebraska Territory, received through Professor Baird.

One of them consists of a great portion of the carapace and sternum broken into two fragments. It belongs to the genus Testudo. Its length has been about 2 feet, the breadth is 20 inches, and the height 9 inches. The bones are thick and strong. The species Dr. L named Testudo lata.

The second specimen consists of four-fifths of the sternum and about one-third of the carapax. In its perfect state it has been about 9½ inches in length, 7½ in breadth, and about 5½ high. The carapace is very convex. The costal plates are alternately narrow and broad at their outer extremity, and have been united to the marginal plates by cartilage. The latter rise at first a little convex from the sternum, but are afterwards vertical. The species Dr. L. named Emys hemispherica.

Mr. Isaac Lea, referring to his late communication to the Academy on the subject of fossil bones in the collection from the new red sandstone, stated that since then he had received the Proceedings of the Boston Natural History Society, which contained a paper by Mr. Welles, read in December last, noticing the fact that fossil bones of large vertebrate animals had been found in two instances in the red sandstone of Connecticut valley. Mr. Lea said that this was the first notice he had met with of the discovery of bones of this character in this formation.

Dr. Morton offered some remarks on the infrequency of mixed offspring between the European and Australian races.

The singular paucity of half-caste or mulatto children in New Holland, has been remarked ever since that country was first colonized by Europeans. Of the fact there can no longer be a question; it has even led to official inquiries on the part of the Colonial Government, and is yet regarded as a physiological paradox.

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[*] στυλος; εμυς.

Among many other questions which the Legislative Council of Sydney has addressed to the colonial magistrates, was the following one: "Are there any, and how many, half-castes in your district?" The official replies of thirty-one of these magistrates are published in detail in the "Minutes of Evidence" issued by the Legislature at Sydney, in October, 1845.[*] From these Reports I have drawn up the following Table, in which is given the name of each colony or settlement, the whole number of aborigines inhabiting its precincts, the number of half-breeds living with the natives, and the number also of half-breeds who remain with the white population.

Settlement.	No. of Natives.	Half breeds living with the natives.	Half breeds living with the whites
Darling Downs,	1000		3 or 4
Moreton Bay,	4000	Very few.	
McLeay River,	429	Not many.	
Port Macquarie,	370	20 to 30	
Raymond Terrace,	53	3	3
Dungog,	63	3	1
Scone,	70 or 80	[†] Majority of children.	
New Castle,	38	Very few.	Very few.
Wollombi,	73	None.	None.
Brisbane Water,	47	2	2
Windsor,	63		3
Bathurst,	150		A few
Picton,	56		11
Berrima,	40		2 or 3
Bungonia,	Uncertain,		Several.
Goulburn,	20 or 30		A few.
Queanbeyan,	60		1
Mudgee,	50		1-5[‡]
New England,	500 to 600	But few.	
Broulee,	250		12
Murrumbidgee,	2000		A few.
Maneroo,	687		12
County of Grant,	200	None.	None.
Murray,	210	None.	None.[§]
Western Port,	1000		2[‖]
Portland Bay,	3000	None.	None.
Gipp's Land,	1000		2
Melbourne,	5000	20 or 30	
Campaspe,	1522		6
Yarra,	165	1	
Western Establishment,	2000	2	

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[*] For these very interesting documents I am indebted to the kindness of Dr. Charles Nicholson, a highly intelligent Member of the Legislative Council.

[†] The magistrate testifies that there are "very few children" in his District, and that the majority of them are half-caste.

[‡] This number, "one fifth," evidently alludes to the children, though it is vaguely expressed.

[§] "Several have been born, but I know of none living."

[‖] "Very few. I have only seen two."

Now we have here the extraordinary fact, that while the native population in the thirty-one districts is represented to be nearly 15,000, the whole number of half-castes or mulattoes does not exceed 200.

The *causes* of this singular disparity have been variously surmised. *Infanticide* at birth is one of them; but this can have but a partial effect, for we find that fully one-half of the mixed race is living with the natives. *Syphilis* is also adduced, but its influence is manifestly very restricted. *Promiscuous intercourse* is certainly a check upon fecundity; but why should its influence be more manifest in Australia than elsewhere? and as to *repugnance* between the races, this has been set aside by local circumstances. These and various other considerations have been cited in explanation, but without satisfying the inquirer; and we may therefore ask, is not the real cause the *difference of race*, the disparity of primordial organization?

Perhaps no two human races are more remote from each other than the European and Australian; and where such extremes are blended, reason and analogy lead us to expect only a limited fertility. In connection with, and explanatory of, this phenomenon, Count Strzelecki, a distinguished Polish traveller, has stated the following proposition, which I give nearly in his own terms:—Whenever a female of an aboriginal or barbarous tribe, has conceived by a European, she loses the power of conception on a renewal of intercourse with a male of her own race, retaining that only of procreating with a white man. "Hundreds of instances of this extraordinary fact," observes Count Strzelecki, "are on record in the writer's memoranda, to prove that the sterility of the female being relative only to one, and not to another male, is not accidental, but follows laws as cogent, though as mysterious, as the rest of those connected with generation."—*New South Wales and Van Diemen's Land*, p. 346.

My object on the present occasion is merely to state the apparent facts of the case, in order to draw the attention of physiologists, and observers in general, to a more careful and extended notice of these remarkable phenomena.

April 29th.

Dr. Morton, President, in the Chair.

The Committee to which was referred Mr. Cassin's paper read at last meeting, reported in favor of publication in the Proceedings.

Notes of an examination of the Birds composing the family Caprimulgidæ, in the collection of the Academy of Natural Sciences of Philadelphia.

By John Cassin.

1. *Caprimulgidæ.*

No family of birds presents an aspect more uninviting, nor perhaps greater real difficulties in its investigation, nor has any one been more generally neglected, than this. The great fathers of modern Zoology have been but rarely consulted respecting their knowledge of Caprimulgus.

The notes I am now about to offer, I have only to say, are the results of much labor and of as careful research as I am capable of making, with the assistance and confirmation too, of gentlemen of this Academy in whose judgment and accuracy I have the most entire confidence. It is true, however, that they have been written, and the material accumulated during my but limited leisure, or at such fragments of time as I can spare from a business requiring constant attention, (and between which and myself I find it difficult always to maintain the *intente cordiale*,) from which fact, I am fully aware, there may have arisen oversights or misapprehensions from want of more extended or more systematic study. I hope, however, that few such will be found, and at all events I shall have the gratification of being one of the first to invite attention to a hitherto much neglected field for investigation, and perhaps to induce others to enter upon the general examination of the many species of birds, the names of which alone are known, and the descriptions of which continue to be copied by succeeding authors from their predecessors.

2. *Caprimulgus*, Linn.

This genus appears to be restricted to the old world. I have never seen a true Caprimulgus from any part of America or the American islands. I propose to notice in the course of this paper all the American genera, of which I will give a list of such species as I have seen.

3. *Hydropsalis*. Wagler, Isis, xxv. p. 1222. (1832.)

Original description. "Character universalis Caprimulgi; cauda profunde furcata, rectrice utrinque extima elongatissima."

Added by me. Bill rather long, (longer than typical Caprimulgus) slender, and compressed toward the tip, with about 8 or 10 pairs of bristles, which are longer than the bill and curved at the ends, gape moderate, nostrils medial, somewhat elevated.

Wings long, first and second primaries generally longest, second and third strongly sinuated on their outer webs, three first primaries serrated on their outer edges, shafts of primaries very strong.

Tail usually with the two external feathers much longer than the others, sometimes graduated with the two middle feathers shortest, sometimes with the two middle feathers lengthened and next in length to the external.

Tarsi covered with scales and slightly feathered below the joint. Wings without the white bar on the primaries which is found in typical Caprimulgus, tail more or less marked *longitudinally* with white.

Obs.—A very natural genus, first described by Wagler as above in 1832, and afterwards called Psalurus by Swainson in Cab. Cy. Birds, ii. p. 339 (1837.) It appears to be exclusively American.

The species of this genus which I have seen are:

1. *Hydropsalis torquatus*, (Gm.) *Caprimulgus furcifer*, Vieill. *C. psalurus*, Temm.
2. *Hydropsalis limbatus*, Cassin (Oct. 1849.) *H. creagra*, Bonap. (1850.)
3. *Hydropsalis segmentatus*, Cassin (Oct. 1849.)
4. *Hydropsalis lyra*, Bonap. (1850.)

4. *Hydropsalis torquatus*, (Gm.)

1. *Caprimulgus torquatus*, Gm. Syst. Nat. ii. p. 1032, (1788,) a name given by Gmelin on the faith of the "Gold-collared Goatsucker" of Latham, Gen.

t. 2, p. 601, (1783,) who copies from Briss. Orn. ii, p. 481, (1760,)
giving the name of *Caprimulgus Brasiliensis* on the faith of, and
e description of the Guira querea Basiliensibus of Marcgrave and Piso
a Naturalis Brasiliæ, p. 202, (Amsterdam 1648.)
imulgus furcifer, Vieill. Nouv. Dict., x. p. 242, (1817,) a name given
t on the faith of "Del cola de tixera" of Azara, Apunt. Hist. Nat.
ay, ii. p. 536, (Madrid 1805.)
pying Azara's description of the tail of this bird, Vieillot makes an
mistake in substituting the French "plus" for the Spanish "ménos."
imulgus psalurus, Temm. Pl. col. ii. p., pl. 157, 158, (27 liv.)
above names are probably synonymes.
imulgus manurus, Vieill. Nouv. Dict. x. p. 239, (1817)?
me, *Caprimulgus brasiliensis*, was given by Brisson to the bird de-
r Marcgrave and Piso, as above, and he copies their description with
ation. He says of the tail "Rectrices autem binæ intermediæ laterali-
sunt longioribus."
ression used by Marcgrave and Piso is, "Cauda octo digitos longa,
n *extremitate* duabus pennis longioribus reliquis."
il of the common species known as *Caprimulgus psalurus*, *Temm.*, the
feathers are much the longest of all, and the two *middle* feathers are
gth, presenting a very unusual form.
in his description (or rather definition) of *C. torquatus*, cites *C. bra-
Briss.* as a synonyme, also "Guira querea, Ray and Willoughby" and
llared Goatsucker, Lath." and copies Brisson's description of the tail of
which Latham had also done, but having seen the original description
adds, "The two middle tail feathers are eight inches in length."
ire description by Marcgrave and Piso is copied almost verbatim by
y, Ornithologia p. 71, (Folio, 1676). That of the tail is exactly the same
word, "Cauda octo digitos longa constans *in extremitate* duabus pennis
s reliquis."
s edition, in English, of "the Ornithology of Francis Willoughby," p.
o, 1678,) he translates the Latin of Marcgrave and Willoughby thus:
t inches long, having *in the outsides* two feathers longer than the

m used by Marcgrave "in extremitate" is so equivocal, it is not
that Brisson was perplexed, and to have fully justified Ray's
t would have looked better in the plural. Ray's translation is, however,
warrantable as any other, and with the description otherwise answers
y well for the Caprimulgus psalurus, Temm. Pl. col. 157. I am ac-
vith no other American species to which can be applied the following
grave: "circum *totum* collum autem pone caput annulum habet, ob-
um." The size given by Marcgrave is not very definite: "Alaudæ
ne est, sed quia longas alas et caudam habet multo longiorem, videtur
This phrase is copied by the subsequent writers above mentioned, in
of the observations of whom nothing occurs from which I can infer
r of them had seen the species.
mparing a specimen of *C. psalurus* with either *Alauda arvensis* or
will be found that the comparison made use of by Marcgrave may be

applied to this bird without such an extended exercise of the imagination as might at first appear necessary, throwing out of the case too his "videtur major." His only other dimensions are "digiti fere longitudine," applied to the bristles, "rostri superioris ad latera," and "Alas longas habet nimirum semipedem," both of which answer quite well for the bird we now suppose them to have been applied to, and so does his description in all other respects.

I beg to remind the reader, however, that I have no disposition whatever to attempt to make out a case, *ex parte*, and therefore suggest the possibility of Marcgrave and perhaps Brisson having had in view an African species, the Caprimulgus climacurus, Vieill. Gal. des Ois. i. pl. 122, which will suit their descriptions to some extent. Probably at the time Marcgrave wrote (1648) and certainly in the time of Brisson, (1760) bird skins from Africa were often taken to Brazil by vessels engaged in the slave trade, and errors respecting locality might have occurred readily.

The tail of this bird has been particularly unfortunate. In the description by Azara, in "Apuntamientos para la historia natural de los Paxaros del Paraguay," ii. p. 537, (octavo, Madrid, 1805,) he gives the dimensions of the tail of his "Del cola de tixera" thus: "cola 10 plumas: la de afuera ó primera 24 lineas mas larga que la segunda: esta 5 mas que la tercera: y esta 2 mas que la quarta, y 11 *ménos* que la central."

In the French edition of Azara, (Walckenaer's) iv. p. 115, (octavo, Paris, 1809) these dimensions are given correctly: "Des 10 (pennes) de la queue, l'exterieure a 24 lignes de plus que la deuxieme, celle-ci 5 de plus que la troisieme, et cette derniere 2 de plus que la quatrieme, et 11 de *moins* que les 2 du milieu."

But Vieillot in Nouv. Dict. x. p. 242, in his description of *Caprimulgus furcifer*, which is copied from Azara almost verbatim, alters one most important word in the dimensions as given above; he says, "Cette queue a la penne exterieure de vingt-quatre lignes plus longue que la deuxieme, celle-ci en a cinq de plus que la troisieme, et cette derniere deux de plus que la quatrieme, et onze de *plus* que les deux du milieu."

This error has, of course, caused some confusion, and Vieillot's description containing it appears to have been relied on by some authors, (including Bonaparte in Consp. Av.)

This tail was a standing riddle to Vieillot. In Ency. Meth. ii. p. 543, (quarto, Paris, 1823) although he continues to copy the description of Azara, he further alters, thus: "Cette queue a sa penne exterieure plus longue de vingt-quatre lignes que la deuxieme; celle-ci en a cinq de plus que la troisieme, qui en a deux de plus que la quatrieme, *qui surpasse les deux du milieu de pres d'un pouce.*"

All the dimensions of Azara answer very well for the Caprimulgus psalurus, Temm., in young plumage or perhaps in the plumage of winter, which was the season when the observations of Azara were made, "He visto," he says, "algunos siempre solos, y en lo mas crudo del *invierno* nunca en verano ni primavera."

The synonymes of this species given by Hartlaub, in Systematischer Index zu Don Felix de Azara's Apuntamientos, &c., p. 19, (quarto pamphlet, Bremen, 1847,) are entirely correct as far as they go.

The fact that a specimen in the British Museum is named *Caprimulgus manurus* ill., and inserted in the catalogue (p. 10) as distinct, only prevents me from ing that name also, as a synonyme for the present species. I do not see how species can be made out from Vieillot's description in either Nouv. Dict. x, p. , (1817) or Ency. Meth. ii. p. 540, (1823) which both contain important ors. In the original description (Nouv. Dict.) he says, "Nous verrons par la te un engoulevent dont la *troisième* penne de la queue est la *plus longue de tes;* singularité qui ne se rencontre chez aucun autre oiseau. Celle du Manure présente sous une forme plus extraordinaire; la première penne caudale de que côté est très longue et dépasse les deux intermédiares d'environ cinq ces; les *troisième* et quatrième sont *tres courte*, et la cinquième, qui a plus de geur qui celles-ci, est plus courtes que les deux du milieu qui ont plusieurs ces de moins que les deux premières."

he third feather of the tail is twice mentioned and contradictorily represented, second feather is not described at all, and the fifth is said to be shorter than two in the middle, which must be considered as making twelve tail feathers, en really Hydropsalis and other American Caprimulgi have not more than . In *Ency. Meth.* the observation "*Nous verrons,*" &c., is omitted. proceeds, however, with exactly the same description, which even without introductory representation that the third feather is longest of all is not intelli-le, because the fifth is still represented as "plus courte que celles du milieu." ere are mistakes here, now difficult to correct, but as the descriptions in both ks are otherwise quite like the species now before us, I have little doubt that s the bird meant by this distinguished and learned naturalist.

Genus Stenopsis, nobis, *nov. gen.*

ill longer than typical Caprimulgus, tapering and depressed; upper mandi- with about six or seven pairs of bristles, which are very rigid at their bases, very slender and curved at their tips; gape very moderate, nostrils medial; rture somewhat elevated.

ings moderate, second and third primaries longest (usually the second) and ated on their outer webs. Tail ample, *fan-shaped*, truncate or slightly rginate. Tarsi slightly feathered below the joint, shorter than the middle toe claw, and covered with scales.

ings with a conspicuous white bar in males, and probably in females; neck h a broad and uninterrupted collar, white in front, and fulvous behind; tail ally with a large portion of white on the external feathers; characters of the resembling Hydropsalis, Wagler.

s.—Another exclusively American genus, the bill in which very considerably mbles that of Hydropsalis. The species which I have seen are:

. *Stenopsis cayennensis*, (Gm.) Pl. Enl. 760. Jard. and Sel., Ill. pl. 87.

. *Stenopsis longirostris*, (Bonap.) Jour. Acad., Philada., iv. p. 384.

. *Stenopsis parvulus*, (Gould.) Proc. Zool. Soc., London, 1837, p. 22.

hich have several synonymes.

Genus Nyctidromus. Gould, Icones Avium, part ii. (August 1838.)

he species which I have seen of this genus are:

. *Nyctidromus americanus*, (Linn.) *Caprimulgus albicollis*, Gm. *Nycti-mus Derbyanus*, Gould.

. *Nyctidromus guianensis*, (Gm.)

. *Nyctidromus grallarius*, Bonap.

7. *Nyctidromus americanus*, Linn.

1. *Caprimulgus americanus*, Linn. Syst. Nat., i. p. 346, (1766,) a name given by Linnæus on the faith of *Caprimulgus seu Noctua sylvatica Jamaycensis minor*, described by Ray, Syn. Av. et Pis. Appendix, p. 180, (1713,) who copies his description from the manuscripts of Sir Hans Sloane, which were afterwards published in Nat. Hist. Jamaica ii. p. 296, (1725,) with a figure, pl. 255. fig. 1.

2. *Caprimulgus albicollis*, Gm. Syst. Nat. ii. p. 1030, (1788) a name given by Gmelin on the faith of the White-throated Goatsucker of Latham, Gen. Syn. ii pt. 2 p. 596.

3. *Nyctidromus Derbyanus*, Gould Icon. Av. part ii. p. pl. (August 1838.)

4. These names are probably synonymes, and the original describers from specimens are Sloane for C. americanus, Latham for C.albicollis and Gould for N. Derbyanus,—to which Azara may be added, (Del Ybiyau, Apunt. ii. p. 538, 1805.)

The Caprimulgus americanus of Linnæus appears to have been founded on the faith principally of Ray's description, and on Sloane's description and figure. Linnæus enumerates two species only of Caprimulgus; the first of which (*C. europæus*,) he briefly characterizes as "C. narium tubis obsoletis," and the second (*C. americanus*,) as "C. narium tubulis eminentibus." He cites as synonymes the description and figure of Sloane, and the description by Ray, as above, also "Caprimulgus jamaicensis, Briss. Av. ii. p. 480," and "Hirundo major subfusca miscella, macula alba sphœrica in utraque alba. Brown, Jam. p. 467."

In Brown's Jamaica p. 467, (Civil and Natural History of Jamaica by Patrick Brown, M.D. London 1756,) there is a short and entirely inconclusive description the most important feature in which is, that the bird is "about the size of a Sparrow Hawk, and of a darkish, mottled and striped colour." He gives as synonymes "Catesby i. pl. 8" and "The lesser Goatsucker of Edwards, pl. 63," both of which are *Caprimulgus vociferus*, Wilson.

Brisson in Orn. ii. p. 480, (1760) under the head of *Caprimulgus Jamaicensis*, copies Sloane's description above referred to, and gives several names as synonymes, among them one from Brown different from that given by Linnæus, that is to say, "Strix capite levi, plumis griseo albidus labiorum pilosus, Brown, Hist. of Jam. p. 473." Upon turning to this I find a bird described as "The screech Owl," with the Latin phrase just quoted, which comprises the entire description.

The synonymes then, to the point we have now attained are, for much the greater part, unsatisfactory, nor are Brown's descriptions of any account whatever, so for as relates to actually determining the species.

Gmelin in his edition of the Syst. Nat. of Linn. ii. p. 1032 (1788,) gives as additional synonymes "Engoulevent a lunettes ou Haleur, Buff. hist. nat. des ois, vi. p. 543," and "American Goatsucker, Lath. syn. ii. 2 p. 600, n. 14," both of which are avowedly founded on Sloane's description and figure.

Geo. R. Gray, in Genera of Birds gives this as a *Chordeiles*, citing Sloane's figure. It is by no possibility a Chordeiles, in which there is no such character as "along the upper mandible were several bristly hairs in line," as stated by Sloane and represented in his plate.

Gosse in Birds of Jamaica p. 51, thinks it may be his *Nyctibius pallidus*, which is also impossible for the reason just stated, and others which are obvious upon examination of Sloane's description and figure.

Bonaparte, in Conspectus Avium p. 63, places Caprimulgus americanus, Linn. as a *Chordeiles*.

It does not appear that either of the authors cited, from Ray to the present time, ever saw a bird which he understood to be the Caprimulgus americanus, Linn., for which Sloane is the sole authority. In fact, the exact expressions used by him are repeated by nearly all writers;—for instance, the term "Feuillé mort" which he applies to the colour of his bird, is copied exactly by Brisson, Buffon, Vieillot and Latham, while Gmelin latinizes it into "folii marcidi."

For the purpose then of ascertaining or rendering probable what bird is entitled to the name of *Caprimulgus americanus, Linn.*, there is nothing left but to revert to the description and figure of Sloane, and to the description in the catalogue of Sloane's birds, by Ray, who describes "ex ejusdem Schedis manuscriptis," in Syn. Av. App. p. 180.

A difficulty occurs at once, which has perplexed authors. It is, that although Sloane describes his bird as "seven inches from the end of the bill to that of the tail," he gives a figure about eleven inches long, respecting which Buffon justly enough observes, "qu'il est fort rare que l'on donne de pareilles figures grossies." Ray says, "parva admodum avis est,—septem non plus digitis longa," having seen the manuscript only. Gmelin, Vieillot, G. R. Gray and Bonaparte appear to rely on the text exclusive of the figure. Brisson says eleven inches long without comment, relying on the latter. Buffon (Hist. Nat. des Ois. vi. p. 544, 1779) attempts to elucidate, and suggests that the measure given by Sloane may have been taken to the base of the tail only, which he says with the tail (4 inches) would coincide with the length of the figure. Latham, perhaps taking the idea from Buffon, offers a similar supposition. But Sloane says very distinctly, "from the end of the bill to that of the tail," and it is clear enough and easily ascertained that all the other birds described and figured by him were so measured.

It is sufficiently evident to me that Sloane's measurements are simply wrong; he says, "This was seven inches long from the end of the bill to that of the tail, and *ten* from the *end* of wing to wing expanded,—the tail was four inches long." It would be difficult to find a bird with such relative dimensions, especially a Caprimulgus. It is simply a mistake made by Sloane himself, as it evidently was so written in his manuscript, according to Ray. Nor are the dimensions given by him ever entirely to be relied on, for the good and sufficient reason that he measured with his *thumb*, "which," he says, "with a *little allowance* I reckoned an inch." (Preface to Vol. i. p. 2.) I am disposed to reject his dimensions entirely as given in the description of the species now under consideration, but to place full dependence on those of the figure, because, as he says expressly, his figures were made "on the place." "I employed," says he, "the Reverend Mr. Moore, one of the best designers I could meet with there, to take the figures of them, (fruits,) also of the Fishes, Birds, Insects, &c., in crayons, and carried him with me into several places of the country, that he might take them on the place." The Reverend Mr. Moore no doubt came generally pretty near the right size, but otherwise did not acquit himself very handsomely in birds, judging from the engravings. In plants, however, he did much better.

Rejecting then the measurements in the description, it is otherwise, with the plate, sufficient to determine the genus and perhaps the species.

The bird belongs to the genus Nyctidromus, Gould, Icon. Av. part ii, and the species is probably N. Derbyanus, Gould, upon which the genus is founded. It is stated in Sloane's description that "it had a quarter of an inch long crooked black bill, with two tubuli about one-eighth part of an inch long for nostrils; along the upper mandible were several bristly hairs in a line—the legs and feet were an inch and a half long, covered with brown scales; the toes four, three before, that in the middle three-quarters of an inch long, and one behind." "The head and back," he says, "were covered with feathers of a mixt color of *feuille mort*, grey and black, the wings and tail were of the same color, only lighter, under the chaps breast and belly, were also of the same.

All these characters, except the colors, are represented in the plate.

They are all, including the colors, to be found in the genus Nyctidromus, and there only. Tubular or elevated nares,—"Nares sub-basales elevatæ" (Gould) are characteristic. It is the only American genus with legs entirely bare, except one species of Podager, and there is no species of any American genus at all, to the color of which the term "feuille mort" can be applied with as great propriety as to those of this.

The entire description, so far as relates to color, applies to all the species of the genus Nyctidromus, of which there are three. They are so much alike that they can scarcely be said to differ in any other respect than size. The largest of these species which is about the size of Sloane's figure, I am disposed to conclude is the Caprimulgus americanus, Linn., and that it is the same as the Nyctidromus Derbyanus, Gould, a common South American bird.

It is important that it should be mentioned, however, that this bird has not been observed in Jamaica by Mr. Gosse, or by any other writer so far as my knowledge extends. Should future investigations elicit the fact that it does inhabit that island I shall consider the matter settled beyond a doubt. That a species of Nyctidromus does inhabit Jamaica, and which is not mentioned by Mr. Gosse, Sloane's figure and description clearly demonstrate.

Caprimulgus albicollis, Gm., is the white throated Goatsucker of Latham described by him from a specimen "in the collection of Major Davies, supposed to have come from Cayenne." The description is accurate, except that the size is rather small, "length ten inches and a quarter," but of course taken from a skin. In Gen. Hist. vii. p. 359, he (Latham) gives the length twelve inches, and an excellent description under the same name, and justly cites "L'Ibiyau, Voyage d'Azara iv. No. 310" as a synonyme. This citation is of the French edition of Azara, with notes by Cuvier and Sonnini, Paris, 1809. (Walckenaer's edition.) The description by Azara is the best extant. Gould's figure in Icon. Av. is incomparable.

The bird now under consideration is the Caprimulgus albicollis, Gm., of the greater number of the European authors; occasionally, however, this name is applied to the bird which is properly Caprimulgus guianensis, Gm., as by De Wied, Beitr. iii., p. 318.

It also appears to be the *Caprimulgus laticaudus*. Drapiez. Dict. Class. d'Hist. Nat. vi. p. 169. (Paris, 1824, octavo.)

. *Nyctidromus guianensis.* (Gm.)

Gmelin gives this name on the faith of the "Guiana Goatsucker" of Latham, en. Syn. ii. pt. 11 p. 598, and "Le Montvoyau de la Guyane" of Buffon, Hist. at. des Ois. vi. p. 549, figured in Pl. Enl. 733 (which represents a young bird.) It is very similar to the preceding, but differs in size.

The Prince de Wied, in Beit. zur Nat. von Bras. iii. p. 318, gives the most satis- ctory description extant of this bird. He says, however, that it is the female f *C. albicollis*, which name he cites accordingly as a synonyme. He is high thority on the birds of Brazil, but as I am not aware that so great a difference n the size of the sexes occurs in this difficult group, I have preferred, at present, taining it as a distinct species.

. *Nyctidromus grallarius.* (Bonaparte.)

This appears to be a third species, of which there are several specimens in he collection of this Academy. Bonaparte's description is not, however, suffi- iently explicit, and may possibly be intended for something else.

0. *Genus Antrostomus*, "Gould." Bonap. Comp. List, p. 8. G. R. Gray, List Gen., p. 9, "Gould, Icon. Av., 1838." Agassiz Nomen. Zool. Aves. p. 6, "Gould" Nuttall Man. Orn. i. p. 739, (1840.)

Obs —I have not found the original description of this genus by Gould. It is not ntained in the copy of *Icones Avium* in the library of this Academy, and I sus- ect that the only description is that by Nuttall in Man. Orn. 1 p. 739, (1840.) have seen the following species:

1. *Antrostomus carolinensis.* (Gm.) Aud. B. of Am. pl. 52.
2. *Antrostomus rufus.* (Gm.) Buff. Pl. Enl. 735.
3. *Antrostomus serico-caudatus.* Cassin, Jour. Acad. Philadelphia ii. pl. 12 Quarto.)
4. *Antrostomus vociferus.* (Wilson.) Am. Orn. v. p. 71, pl. 41.
5. *Antrostomus macro-mystax.* Wagler, Isis 1831, p. 533 (a species ?)
6. *Antrostomus ocellatus.* (Tschudi.) Fauna Peruana Aves. pl. 5, fig. 2.
7. *Antrostomus Nuttallii.* (Aud.) B. of Am. (Octavo) vii. p. 350 pl. 495.

The two latter species vary from the typical characters, and may be entitled to onstitute a distinct genus. I have seen also one other small species, of which a oung specimen is in the collection of the Academy, and is labelled as being om Cayenne. I cannot identify it.

1. *Antrostomus carolinensis.* (Gm.)

In the genus Antrostomus, and in this species particularly, the bristles which ave their origin in the upper mandible reach their maximum. They exist how- ver in greater or lesser degree of developement in all typical *Caprimulgidæ*.

In the present species these bristles are not only long and rigid, but each one s ciliated, or, as Audubon expresses it, "with lateral filaments." It is the only pecies in which I have observed such formation.

2. *Antrostomus rufus.* (Gm.)

This bird, named by Gmelin, (Syst. Nat. ii. p. 1030) on the faith of the descrip- on by Latham of "the rufous Goatsucker" (Gen. Syn. ii. pt. 2, p. 597) who opies from Buffon's "Engoulevent roux de Cayenne" (Hist. Nat. des Ois. vi. p. 15) is another of the species which have been lost sight of.

A specimen in the Rivoli collection appears to be this bird. Though much resembling *A. carolinensis*, in colors and general appearance, it is smaller, the wings are shorter and the bristles along the bill are simple, not ciliated as in that species, and are, as Buffon says, "tres roides." I may observe, by the way, that although this author expressly describes his bird as having the bill bordered by nine or ten pairs of very stiff "moustaches," he omits them in his plate. (Pl. Enl. 735.)

The specimen alluded to does not accurately agree with Buffon's figure; the bill is longer, and the lateral tail feathers are largely tipped with white, the neck has, moreover, a whitish collar. I suspect that the *A. rufus* is a South American species nearly allied to *A. carolinensis*.

13. *Antrostomus macromystax.* (Wagler.) Isis 1831, p. 533.

I have attached this name to two specimens from California which are very nearly related to *A. vociferus*, (Wilson.) They seem to be the bird meant in the description or rather notice by Wagler, as above.

14. *Genus Nyctibius.* Vieillot, Analyse, p. 38.

Obs.—This genus is one of the most easily recognized in the circle of the Caprimulgidæ, and is another which is exclusively American. I have seen the following species:

1. *Nyctibius grandis.* (Gm.) Gray's Gen. pl. 16.
2. *Nyctibius ætherеus.* (De Wied.) Reise, Bras. i, p. 236.
3. *Nyctibius longicaudatus.* (Spix.) Av. Bras. ii, pl. 1.
4. *Nyctibius jamaicencis.* (Gm.) Gosse, Ill. B. of Jam. pl. 6.
5. *Nyctibius leucopterus.* (De Wied.) Des Murs, Icon. Orn. pl. 49, 50.
6. *Nyctibius bracteatus.* Gould. Proc. Zool. Soc. Lond. 1846, p. 1.

15. *Nyctibius grandis.* (Gm.)

The Wood Owle of Sloane (Nat. Hist. Jamaica ii. p. 295) and the Guira querea of Buffon (Hist. Nat. des Ois. vi. p. 570, Quarto, 1783) appear to be this species. I am not acquainted with any other American species which has the jaws three inches in width, as stated by both the authors cited, nor to which their descriptions in other respects can be more properly applied.

Latham (Gen. Syn. ii. pt. 2, p. 591) gives both those names as synonymes for his "Jamaica Goatsucker," of which he gives a description and figure,—upon transferring which to his edition of the Systema Naturæ, Gmelin gives the name *Caprimulgus jamaicensis*, (Syst. Nat. ii. p. 1029,) and also erroneously cites as synonymes the same names as Latham. The figure given by Latham (Gen. Syn. ii. pt. 2, pl. 57) represents the N. jamaicensis, which is a well known species, and that plate seems to have saved Gmelin's name from being a synonyme of the N. grandis, there being little in the description which may not be applied to the latter, except the size.

16. *Nyctibius ætherеus*, (De Wied.)

1. *Caprimulgus ætherеus* described by De Wied in Reise nach Brasilien i. p. 236, (1820.)
2. *Caprimulgus longicaudatus* described by Spix in Av. Bras. ii. p. 1, (1825.)

3. De Wied in Beitrage zur Nat. von Bras. iii, p. 303, 310, (1830,) expresses his conviction that these two names are synonymes, and they are so regarded by Gray in Cat. Fissi. Brit. Mus., p. 5, by Bonaparte in Cons. Av., p. 58, and by others.

4. They are distinct species.

That very excellent naturalist, Maximilian, Prince de Wied, appears to have been the first to notice this fine species, which he named as above. He appears, however, not to have seen Spix's specimens, but to have arrived at the conclusion that *C. longicaudatus* is the same as his *C. æthereus*, from the figure and description given in Av. Bras.

Notwithstanding such high authority, I feel myself compelled to decide from specimens in the collection of this Academy, that these are two species. *N. æthereus* is much the larger bird, being about the size of *N. grandis*. It measures in total length fully 22 inches, as stated in De Wied's description. *N. longicaudatus* measures only 18 inches, and is in all other respects smaller, though with a comparatively longer tail. The colors of the plumage in both species present considerable similarity, though in *N. æthereus* they are darker, and the longitudinal stripes much more strongly defined. They are so much unlike that no person would consider them the same who saw them together.

All the species of this genus which I have seen have more or less prominent, erect, earlike feathers above the eye. These are quite obvious in *N. æthereus*. Two specimens of *N. æthereus* and one of *N. longicaudatus* are in the collection. I have seen another specimen of the former in the collection of the United States Exploring Expedition (Vincennes and Peacock) at Washington, which is labelled "Nyctibius grandis," and so called in Mammalia and Ornithology of U. S. Exploring Expedition by T. R. Peale, p. 327, of course erroneously.

(In the publication here alluded to, of which there are thirty copies only in the United States, but one in Pennsylvania and none in the city of Philadelphia, the general history of, and description of supposed new species of Caprimulgidæ, and, in fact, of all the Fissirostres, are erroneous to an extraordinary extent. I have only so far carefully examined it, but have sufficient knowledge of the book to be fully satisfied that little confidence can be placed in any of Mr. Peale's birds, described as new, of which there are upwards of a hundred.)

17. *Nyctibius jamaicensis*, (Gm.)

1. *Caprimulgus jamaicensis*, Gm. Syst. Nat. ii. p. 1029, (1788,) a name given by Gmelin on the faith of the "Jamaica Goatsucker" described by Latham, Gen. Syn. ii. pt. 2, p. 591, (1783.)

2. *Caprimulgus griseus*. Gm. Syst. Nat. ii. p. 1029, (1788,) a name given by Gmelin on the faith of the "grey Goatsucker" of Latham, Gen. Syn. ii. pt. 2, p. 592, (1783,) which is derived from the "Engoulevent gris" of Buffon, Hist. Nat. des Ois vi. p. 548, (1779.)

3. *Caprimulgus cornutus*. Vieill. Nouv. Dict. x. p. 245, (1817) a name given by Vieillot to the "Urutau" of Azara, Apunt. Hist. Nat. Paraguay ii. p. 527, (1805.)

4. These names are probably synonymes, to which may be added *Nyctibius urutau*, La Fresnaye, Guer. Mag. 1837, p. 28, and *Nyctibius pectoralis*, Gould, Icones Avium, pl. 16, (August, 1838.)

No one of six specimens, all of which I consider the *N. jamaicensis* as described by Mr. Gosse in his delightful and valuable volume on the Birds of Jamaica, p. 41, appears to have been so large as indicated by his measurements. There is, however, no reliance whatever to be placed on the measurements of skins, so far as relates to the total lengths, and those of other parts are also liable to error, both from the distortion of the skin in the course of preparation, and from various modes of measuring by naturalists.

The measurements given by the authors cited above, vary considerably, but their descriptions are, I think, sufficiently similar. One specimen in the Rivoli collection (labelled *C. Gouldii*) is certainly Mr. Gould's *N. pectoralis*, though it is rather too large for his description, but not large enough for his figure in Icones Avium; the wing, for instance, measuring about 10¼ inches, instead of 9¾ as in the description, or 10¾ as in the figure. It appears to me to be the bird described by Mr. Gosse, whom I consider the best authority for the species, and, so far as I can see, quite justified in quoting N. pectoralis, Gould, as a synonyme. Gosse's and Gmelin's descriptions are sufficiently similar,—that of the latter is, however, copied from Latham.

To this bird in very nearly the same plumage as figured by Mr. Gould, the observations by La Fresnaye on *N. urutau* seem to apply, which avowedly professes to be the same as *C. cornutus, Vieill.* or the *urutau* of Azara. The description by Vieillot is copied from that of Azara, and corresponds remarkably well with that in Walckenaer's French edition of Azara, iv. p. 112, (Paris 1809.)

The description by Buffon of the *Engoulevent gris.* which is *C. griseus, Gm.*, applies very well so far as it goes to the young bird of this species. There is a specimen in the collection of the Academy not fully grown which is nearly white. This description by Buffon is the sole foundation for the Caprimulgus griseus Gm., a name which has maintained a place in all systems and compilations to the present time, no bird having ever been found to suit it, to my knowledge.

18. *Scotornis longicaudus.* (Drapiez.)

This is the African bird described by Vieillot as *Caprimulgus climacurus* and figured in Gal. des Ois. pl. 122, 1825. It appears to have been first described by Drapiez in Dictionnaire Classique D'Histoire Naturelle vi. p. 169, (Paris 1824, Octavo) next by Vieillot, in 1825, and in the same year (1825) again named Caprimulgus longicaudis, by Stephens, Gen. Zool. xiii. p. 89 on the faith of a description and figure by Latham in Gen. Hist. vii. p. 335 pl. 114. The latter calls it "the long tailed Goatsucker."

19. *Genus Chordeiles.* Swainson, Faun. Bor. Am. Birds p. 466.

Obs.—Of this genus I have seen the following species, the first three of which have several synonymes:

1. *Chordeiles virginianus.* (Briss.) Aud. B. of Am. pl. 147.
2. *Chordeiles brasilianus.* (Gm.)
3. *Chordeiles acutus.* (Gm.) Buff. Pl. Enl. 732.
4. *Chordeiles rupestris.* (Spix.) Av. Bras. ii. pl. 2.
5. *Chordeiles sapiti.* Bonap. Consp. Av. p. 63.

There is also in the collection of this Academy a bird which I suppose to be *Chordeiles minutus*, Bonap. Cons. Av. p. 63. It suits the short description but indifferently however, and is, as Bonaparte observes, "vix hujus generis." It belongs more properly to my genus Lurocalis (Art. 23 of this paper.)

20. *Chordeiles brasilianus.* (Gm.)

1. *Caprimulgus brasilianus.* Gm. Syst. Nat. ii. p. 1031, (1788) a name given on the faith of "the Brazilian Goatsucker" of Latham Gen. Syn. ii. pt. 2, p. 598 (1783) who compiled from Brisson Orn. ii. p. 483 (1760) who copied from Marcgrave and Piso's "Ibijau Brasiliensibus; Noitibo Lusitanis," Hist. Nat. Bras. p. 195 (1648.)

2. *Caprimulgus noitibo.* Vieill. Nouv. Dict. x. p. 241, a name substituted by Vieillot for the above.

3. *Caprimulgus variegatus.* Vieill. Nouv. Dict. x p 238, (1817) a name given on the faith of "Del Jaspeado" of Azara, Apunt. ii. p. 546. (1805.)

4. "*Caprimulgus jaspideus*, Merrem." Bonap. Consp. Av. p. 61.

"Caprimulgus brasilianus, Lin. Gm. Prinz. Max. Beitr. iii. p. 337," is erroneously given in Tschudi, Fauna Peruana, Orn. p. 20, as a synonyme for *Caprimulgus ocellatus*, Tschudi, Fau. Peru. pl. 5, fig 2, originally described in "Avium conspectus Fau. Per. p. 8 (1844,) and which is certainly the bird described by the Prince de Wied under the name of "C. brasilianus, Linn. Gm. Lath."

C. ocellatus, Tsch., we regard at present as an aberrant *Antrostomus*, and it does not belong to the same genus as the C. brasilianus, Gm., which is a *Chordeiles.*

Upon referring to the description given by Marcgrave, as above, which is copied almost verbatim by Willoughby, (Orn. p. 70) and essentially by Brisson, Latham, and Vieillot, characters will be found, I think, sufficient to determine both genus and species, "Caput habet latum et compressum,—exterius autem oculos ambit circulus exo albo flavescens. Rostellum minimum habet quod non excedit crassitiem dentis *aranei* (sorex araneus, Linn ?) nec tam longum est. Nares tamen patentes in rostro. Caudam habet elegantem, quam in latum potest explicare, duos digitos longam, cum cujus extremitate alæ desinunt.—Crura alba et secundum corporis molem parvula, vix semidigitum longa."

Among the American Caprimuldigæ the colored ring around the eye, the very small bill, the short tail, and the wings equal to the tail in length, are combined only in the genus Chordeiles. Nothing is said by Marcgrave about the bristles at the base of the bill, but as he particularly mentions them in the description of his only other species, (p. 202,) it is safe to infer that none existed in the present bird, which raises an additional presumption in favor of Chordeiles.

Let us see what can be made of the specific characters: "Avicula hirundinis magnitudine,—pennas in toto corpore inferiore habet ex albis et nigro mixtas ut *Nisus*, in capite, dorso, alis et cauda nigricante et albido inspersa grata varietate; nonnihil quoque flavedinis albedini admixtum, uno verbo, nigra est et punctulata subtiliter hinc inde."

This description applies to the bird now before me, which is that described with his usual great ability by the Prince de Wied as *C. semitorquatus.* The coloring of the under surface of the body bears a decided resemblance to that of *Accipiter nisus*, (Linn.) and in all respects I think it is clearly the *C. brasilianus*, Gm.

It will be observed that the color of the tail is represented as similar to that of the upper parts of the body. Neither the white spots near the ends of the tail feathers, nor the white collar in front of the neck are mentioned, which I cannot account for, as the latter is not absent in any American Goatsucker. The bird described may have been young, or a female. The expression "caudam elegantem" alludes probably more to the form than the color.

Caprimulgus noitibo, Vieill., is avowedly a substitute for the name given by Gmelin. Vieillot's description is copied from Buffon, (Hist. Nat. des Ois. vi. p. 539, 1789,) who, however, copies from Marcgrave. *Caprimulgus variegatus*, Vieill., appears to be the same bird.

The term "Jaspeado" applied to his bird by Azara, appears to mean simply "*marbled*" (Connelly and Higgins' Dictionary of the Spanish and English languages ii. p. 232, Quarto, Madrid, 1798,) its latinization into "jaspideus," which appears to have been done by Merrem, is of very doubtful correctness, and calculated to convey to ears accustomed to the English language, the erroneous idea that the bird is the color of the stone known as jasper, which would be taken to mean in the generality of cases a reddish brown or liver color; or worse, according to the classic meaning of the word jaspis or jasper, (hence jaspideus,) "a stone of a green color," (vide Latin dictionaries.)

21. *Chordeiles acutus*, (Gm.)

Caprimulgus acutus, Gmelin, Syst. Nat. ii. p. 1031. Buff. Pl. Enl. 732.
Caprimulgus pruinosus, Tschudi, Av. Consp. p. 8. Fau. Peru. Aves pl. 6.
Caprimulgus exilis, Lesson, Rev. Zool. 1839, p. 44. Comp. de Buff. xx. p. 258.
Chordeiles labeculatus, Jardine, Ann. and Mag. Nat. Hist. 1846, p. 118.

All these names are synonymes. The acumination at the tips of the shafts of the tail feathers, from which the specific name of this bird is derived, affords a character by which it is easily recognized, when present. But this is by no means constantly the case, though when not observable the ends of the shafts of the feathers are frequently abruptly terminated, and appear as if broken off. This fact, and the very indifferent character of Buffon's figure, (Pl. Enl. 732,) are sufficient reasons that this bird has not been readily recognized, and that it has been several times described under different names by very able and learned authors.

Caprimulgus pruinosus, Tschudi, is this bird. In Fauna Peruana, Cabanis erroneously refers that species to *Caprimulgus semitorquatus*, Gm., having been influenced probably by the Prince de Wied's description of the bird, which he supposed to be the latter, (Beitrage iii. p. 330.) This description applies, however, to Caprimulgus brasilianus, Gm., and not to C. semitorquatus, which belongs to another genus.

22. *Genus Podager*, Wagler, Isis xxv. p. 277, (1832.)

Proithera, Swainson, Cab. Cy. Birds ii. p. 339, (1837.)

Orig. descr. Wagler. "Wesentlichstes äuszeres Merkmal der Sippe: pollex interno-transversalis, non versatilis. Andere Kenzeichen liegen in der Gestalt der Flügel, des Schwanzes, in der Farbe des Gefieders, u. s. w.

Hierher als Species: Caprimulgus diurnus, Wied, (Nacunda, Azar.) Fliegt gesellschaftlich bey Tage."

Orig. descr. Swains. "Rictus almost smooth. Wings very long, equal to the tail, which is short and even. Tarsus very naked. America. P. diurnus. Pl. Col. 182."

Obs.—Each of the distinguished naturalists above cited founds his genus on *Caprimulgus diurnus*, De Wied, Reise nach Bras. ii, p. 174, (1821,) which appears to be identical with "Del Nacunda" of Azara Apunt. ii. p. 544, on the faith of which Vieillot named the species *Caprimulgus Nacunda*, in Nouv. Dict. x. p. 240, (1817.) I am acquainted with one species only of this genus, which inhabits South America, and is that upon which it is founded:

1. *Podager nacunda*, (Vieill.) Temm. Pl. col. 182.

23. *Genus Lurocalis*, nobis, *nov. gen.*

Bill depressed, broad at base and suddenly compressed to the point, which is hooked and acute; nostrils basal, aperture slightly elevated, bristles rudimental or none, mandibles somewhat dilated at base, gape ample. Wings long, pointed, reaching to the end of the tail or beyond; first and second (usually the second) primaries longest. Tail short, truncate. Tarsi short, feathered in front to the toes, naked behind. General form of head and body broad and robust. Wings and tail without white, throat with a white angular uninterrupted semicollar.

Obs.—Of this new genus I have seen two species, both South American:

1. *Lurocalis Nattererii*, (Temm.,) Pl. col. 107.
2. *Lurocalis semitorquatus*, (Gm.,) Podager Gouldii, Gray Gen., pl. 18.

24. *Lurocalis semitorquatus*, (Gm.)

1. *Caprimulgus semitorquatus*. Gm. Syst. Nat. ii. p. 1031, (1788,) a name given by Gmelin on the faith of the "White collared Goatsucker" of Latham, Gen. Syn. ii. pt. 2, p. 599, (1783,) who copies from "Le petit Engoulevent tachete de Cayenne" of Buffon Hist. Nat. des Ois. vi. p. 540, (1779,) Pl. Enl. 734.

2. *Podager Gouldii*. G. R. Gray, Genera of Birds, pl. 18,—figured only, no description published.

3. These names are probably synonymes.

In endeavoring to ascertain the genus to which C. semitorquatus, Gm., should be referred, it must be admitted, that if we depend on Buffon's short description, as above, and that of Gmelin, which is shorter, the bird may as readily be considered as belonging to Chordeiles as to any other genus. Buffon, who describes from a specimen "dans le cabinet de M. Manduyt," which he probably figures also, says that it resembles Marcgrave's Ibiyau, (*C. brasilianus*,) "par la longeur relative de ses ailes et par ses autres proportions." In the latter (vide art. 20 of this paper) the wings and tail are nearly equal, and this is also the case in Buffon's plate, (Pl. Enl. 734.) This does not agree with one of the characters of Lurocalis, but in all other respects the bird figured by Buffon has every appearance of a bird of this genus, and, moreover, so much resembles the *P. Gouldii*, that I have little doubt it is the same bird.

Upon comparing a specimen of the *P. Gouldii* (which is not a rare bird) with Buffon's plate, the thickness of the head and body, the truncated tail, the general colors of the body above and below, and especially the markings of the wings and tail, present such a strong similarity, that it appears to me impossible to avoid the conclusion that it is the species intended to be represented, notwithstanding the comparative shortness of the wings.

If we compare with the same plate a specimen of the *C. brasilianus*, which is referred to it by De Wied, we will quite agree with him that it is "sehr schlecht," (very bad.) Buffon's name, "Engoulevent tachete," is quite appropriate for this species.

Temminck seems therefore to have been correct (Pl. col. vi. p. 78) in applying the name *C. semitorquatus* to Buff. Pl. Enl. 734.

25. *Lurocalis Nattererii.* (Temm.) Pl. col. 107.

This bird is larger than the preceding, and may be distinguished from it not only by its size, but by the greater extent of the rufous color of the lower parts of the body.

In the present species, not only the ventral region and abdomen are of this color, but it extends upwards almost to the breast. This difference may be seen by comparing Pl. col. 107 and Pl. Enl. 734. In other respects the two birds present considerable similarity, and may be sexes of the same species.

26. *Genus Steatornis.* Humboldt, Obs. de Zool. ii. p. 141.

I mention the curious bird which constitutes this genus for the purpose of completing the notices inserted in this paper of all the American genera of Caprimulgidæ, and list of all the American species which I have seen. The only known species of this genus, several specimens of which are in the collection of this Academy, is,

1. *Steatornis caripensis.* Humb. Nouv. Ann. du Mus. Paris, 1834, p. 321, pl. 15.

The Chairman presented a statement from the Treasurer, George W. Carpenter, Esq., announcing that he had received from the executors of the late Mrs. Elizabeth Stott of this city, the amount of the legacy bequeathed by her to the Academy, and that the same had been invested by him for the benefit of the Publication fund of the Journal of the Academy, as directed in the will.

DONATIONS TO MUSEUM

In March and April, 1851.

March 4th.

nd leaves of Lodoicea Maldivica, one Pelamis, one Pennatula spinosa, ıra, from the Gulf of Siam. Presented by Dr. Hopkinson, U. S. N., Dr. Ruschenberger.

ction of Serpents, in spirits, from South Africa. From Dr. Watson.

us rufus, from Brazil. From H. Bond Dewey, Esq.

rton deposited crania of a Cochin Chinese, of a Chinese child, and of a Borneo.

pus Swainsonii. From Mr. J. C. McGuire, of Washington.

March 11th.

ne specimens of fossil Crustacea from Turon Bay, Cochin China. Pre- Dr. Ruschenberger.

of nine Mammalia, twenty-four Birds and five Reptiles. Deposited by ton.

April 8th.

of a fossil Shark, from the green sand, Monmouth Co., N. J. From Powel, Jr.

a alba, from the vicinity of Reading, Pa. From Dr. J. P. Heister, of

Salt, from near Abingdon, Virginia. From Dr. J. C. Fisher.

y-six species of fossil Shells and Radiata, from North Carolina, Virginia, l, Alabama, California and Oregon. From Mr. T. A. Conrad.

Garnet, Melanite, foliated red oxide of Zinc, from Sussex Co., N. J. . S. Vaux, Esq.

April 15th.

e from Warwick, Orange Co., N. Y.; Tabular Calcareous Spar, from N. Y.; Idiocrase, from Welles, Maine; Cinnamon Stone, from Amherst, tatill, Lancaster Co., Pa. From W. S. Vaux, Esq.

April 22d.

cal nodule of Carbonate of Iron, from the mouth of Columbia River. e Southwark Library Co.

two species of native marine and fresh water Algæ. From Mr. John of New York.

of Carbonate of Iron, with a Coprolite as a nucleus, from New Haven, . From Mr. Isaac Lea.

DONATIONS TO LIBRARY

In March and April, 1851.

March 4th.

ches upon the Necropolis of New Orleans. By B. Dowler, M. D. e Author.

l Report of the Trustees of the State Library of New York, Feb. 10, From the Trustees.

tical treatise on the use of the Microscope. By John Queckett. 8vo. r. Balliere.

oology of the Voyage of the Samarang. Mollusca. Part 3. From the

A new Portuguese Grammar. 2d edition. By Anthony Vieyra Transtagano. 8vo. From Mr. R. Pearsall.

A Dictionary of the Portuguese and English Languages. By A. Vieyra Transtagano. 2 vols. 4to. From the same.

Catalogue of the Knowsley collections belonging to the Earl of Derby. By L. Fraser. From the Author.

American Journal of Science and Arts for March, 1851. From the Editors.

Contributions to Ornithology. By Sir Wm. Jardine. Parts 5 and 6. 1850. From H. S. Strickland, Esq.

Journal of the Indian Archipelago and Eastern Asia. Vol. 4, Nos. 9 and 10. From the Editor.

The following were presented by Dr. Wilson on the usual condition:—

Histoire naturelle generale et particulier des Mollusques terrestres et fluviatiles. Par, M. de Ferussac, continue par M. Deshayes. 38 et 39 Livs. folio.

Etudes sur les Echinides fossiles du Departement de L'Yonne. Par M. Gustave Cotteau. 5e et 6e Liv.

History of British fossil Reptiles. By Richard Owen. Part 3. 4to.

Palæontographica. Beytrage zur Naturgeschichte der Vorwelt. Heraus. von W. Dunker und H. Von Meyer. Vol. 3. No. 1.

N. Godofredi Leske additamenta ad J. T. Klein naturalem dispositionem Echinodermatum, &c. 4to.

Annals and Magazine of Natural History. Nos. 35 and 36.

History of British Mollusca and their Shells. By Prof. Forbes and S. Hanley. Nos. 33 and 34.

Phycologia Britannica. By H. Harvey, M. D. Nos. 52 and 53.

Conchologia iconica. By Lovell Reeve. Nos. 91 and 92.

Genera of Diurnal Lepidoptera. By E. Doubleday: continued by A. O. Westwood. Nos. 37 and 38.

Monograph of the Odontophorinæ. By John Gould. Part 3. folio.

The fresh-water Fishes of Great Britain. By Mrs. T. E. Bowdich. Part 4. (completing Acad. copy.)

March 11th.

A Dictionary of English, German and French. By Mr. Christian Ludwig. 3d ed. 4to. From Mr. R. Pearsall.

A Dictionary of the English and Italian Languages. By Joseph Baretti. 2 vols. 4to. From the same.

Christian Ludwig's Teutsch-Englisches Lexicon. 4to. From the same.

A new Spanish and English Dictionary. By Capt. John Stevens. Folio. From the same.

Lichenes Americæ Septentrionalis exsiccati. Fascic. 1 et 2. Curante E. Tuckerman. 4to. From the Author.

Bibliotheca Botanica seu Herbaristarum scriptorum promota Synodia J. Antonio Bumaldo Bonan. collect. 4to. From Dr. L. Turnbull, of Philadelphia.

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T. Bartholini de Unicornu observationes novæ. 2d ed. 16mo.

Recueil de Lions. Par Bernard Picart. 4to.

March 18th.

Memoirs of the American Academy of Arts and Sciences. New series. Vol. 4, pt. 2; and Proceedings of the same, Vol. 2, pp. 161. From the Academy.

Dr. Wilson presented the following on the usual condition:—

London Athenæum, for January, 1851.

Recherches anatomiques et Zoologiques faites pendant un voyage sur les Cotes de la Sicile et sur divers points du littoral de la France. Par MM. Milne Edwards, A. D. Quatrefages et Emile Blanchard. Pts. 1, 2, 3. 4to.

Recherches anatomiques et physiologiques sur le dévelopement du Fœtus, et du particulier sur l'évolution embryonnaire des Oiseaux et des Batrachiens. Par MM. Baudrimont et Martin St. Ange. 4to.

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L'ami de la Nature. Par G. Toscan. 8vo.

Histoire des Singes et autres animaux curieux. 8vo.

Traité sur le maniére d'empailler et conserver les animaux. Par M. l'Abbé Manesse. 8vo.

The Journal of a Naturalist. 3me. ed.

Caroli Linnæi Fauna Suecica. 8vo.

The Note-book of a Naturalist. By E. P. Thompson. 8vo.

Quelques mémoirs sur différens sujets. 2d ed. (Dupont.) 8vo.

Utkast till Elefantens natural historia. Af C. Quesnel. 8vo.

The history of Cheltenham and its environs, &c. 8vo.

Interesting facts connected with the animal Kingdom, with some remarks on the unity of our species. By J. C. Hall, M. D. 8vo.

Œuvres sur divers sujets d'histoire naturellé. Par J. Draparnand. 8vo.

Traité élémentaire d'histoire naturelle. Par A. M. Constant Dumeril. 8vo.

Observations de Lamoignon-Malsherbes sur l'histoire naturelle de Buffon et Daubenton. 2 vols. 8vo.

Essai Zoologique, ou histoire naturelle des animaux sauvages, quadrupedes et oiseaux indigénes. Par A. Delarbre. 8vo.

Tratado de Simplici, Pietre, et Pesci Marini che nascono nel lito di Venetia Di Antonio Donati. 4to.

Beytrage zur Naturgeschichte, von F. von Paula Schrank. J. C. D. Schreberi novæ species Insectorum. F. A. Ant. Meyer Tentamen Monographiæ generis Aloes. MSS. 4to.

Miscellaneous tracts and collections relating to Natural History. By W. Falconer, M. D. 4to.

Zoographie des diverses régions tant de l'ancien que du nouveau continent. Par L. F. Jauffret. 4to.

Faune du Department de la Moselle. Par J. Hollandre. 2 vols. 12mo.

Histoire naturelle, &c., du Tonquin. Par M. l'Abbé Richard. 2 vols. 8vo.

Le voyageur naturaliste. Par M. Lettsom. 8vo.

Histoire naturelle de la Hollande Equinoxiale. Par Philippi Fermin, M. D. 8vo.

Beskrifning pa Svenska Djur. Mammalia. Af Carl P. Thunberg. 8vo.

Memoire sur l'histoire naturelle de l'ile de Corse. Par M. Barral. 8vo.

L'art de preparer, monter et conserver les Oiseaux, &c. Par P. Evans.

Vue générale des progres de plusieurs branches des Sciences naturelles. Par M. Lacépéde. 8vo.

Directions for collecting and preserving specimens of natural history in tropical climates. By Samuel Stevens.

Catalogue du cabinet d'histoire naturelle delaissé par feu Joan Raye.

Tracts relating to Natural History. By J. E. Smith, M. D. 8vo.

Synopsis of the contents of the British Museum. 24th ed. 8vo.

Abhandlungen über verscheidene Gegenstände der Naturgeschichte. Von J. S. Schrœter. 2 vols. 8vo.

Miscellanea curiosa. 3 vols. 8vo.

Cours d'histoire naturelle, conforme au nouveau programme de l'Universite. Par D. H. L. Fournel. Zoologie. 8vo.

Mémoire sur les qualités et les connaissances que doit avoir un Naturaliste voyageur, &c. Par le Ch. Bourdet. 8vo.

April 1st.

Essai sur les usages des Montagnes. Par E. Bertrand, M. D.

De Diluvii universitate dissertatio prolusoria. 12mo.

Gigantomachie pour repondre a la Gigantostologie. 12mo.

The Vulcanos, or burning and fire mountains famous in the world, collected for the most part from Kircher's Subterranean World. 4to.

Lettre à M. le Comte de Buffon sur la theorie générale de la Terre, 2d ed. 8vo. M. Bertrand.

Specimen Lithographiæ Helveticæ curiosæ. A. J. J. Scheuchzero. 8vo.

Le Monde de verre reduit en poudre. Par M. l'Abbe Royou. 12mo.

Observations sur l'origine et la formation des pierres figurées. Par P. Barrere. 8vo.

Histoire des anciennes revolutions du Globe terrestre. 8vo.

Ordre natural des Oursins de Mer et fossiles. Par M. T. Klein, 8vo.

Specimen historiæ naturalis Globi terraquei. Auctore R. E. Raspe. 8vo.

Theorie de la surface actuelle de la Terre. Par M. André. 8vo.

Istoria dell'incendio dell'Etna del Mese Maggio, 1818. Di C. Maravigna. 8vo.

Introduzione alla Geologie di Scipione Breislak. 8vo.

Nouveaux principes de Géologie. Par P. Bertrand. 8vo.

Nachtrag zu der Abhandlung des Prof. Goldfuss ueber den Ornithocephalus Munsteri. Von George Grafen zu Munster.

Notice sur le Dinotherium giganteum. Par E. Desor.

Instructions for the collecting of geological specimens.

Lettre de M. Rampasse à M. Cuvier sur un Breche calcaire contenant des os fossiles decouverte en Corse.

Ueber Terebrateln. Von Leopold Von Buch.

Dissert. physica de figuris variarum rerum in Lapidibus et speciatim fossilibus comitatus Mansfeldici. Ab J. A. Brunner.

Resumé preliminaire de l'ouvrage sur la theorie des Volcans. Par le Comte de Bylandt.

These sur les caractéres distinctifs des huitres, des gryphees et des exogyres. Par M. A. Leymerie.

Observations sur les Ichthyo-sarcolites et sur les Hippurites. Par M. Roulland.

Memoire sur les ossemens fossiles de St. Privat d'Allier et sur le terrain basaltique ou ils ont été decouverts. Par J. M. Bertrand de Doue.

Observations sur un nouveau genre de Saurien fossile, le Neustrosaurus Gigondarum. Par Eugene Raspail.

Note sur quelques ossemens fossiles de Palæotherium recueillis dans le Departement de la Gironde. Par M. Billaudel.

Conjectures physico-mechaniques sur la propagation des secousses dans les tremblemens de terre. (Desmarest.)

A descriptive catalogue of antediluvian remains, the property of Mr. J. Duffield of Tewksbury.

An inquiry into the changes of level in the Sea and Land on part of the West Coast of Great Britain, within the historical period. By J. A. Picton, Esq.

Ueber ein bey Adelsberg neuentdecktes Palæotherium von einem Freunde der Natur. 12mo.

Trilobites found in the transition limestone at Dudley: from the collection of Mr. Payton.

Memoir on the geology of Central France. By G. Poulett Scrope. 4to. and Atlas.

Petrefacta Suecana formationis Cretaceæ, descripta, &c., a S. V. Nillson. Pars prior. Folio.

Testacea microscopica aliaque minuta ex generibus Argonauta et Nautilus. A Leopold. a Fichtel et J. P. C. a Moll. 4to.

Memoria en que se trata del insecto grana ó Cochinella. Por Dr. Josef Anton de Alzate.

Ancient Liverpool. By J. A. Picton.

Hieronymi Cardani Mediolanensis medici de Subtilitate libri 21. 8vo.

Observations on the arts, &c., by Thos. Winstanley. New edition. 8vo.

A practical treatise on the law of mines and minerals. By W. Bainbridge. 8vo.

Notice des tableaux du Musée Royal a la Haye.

Description des tableaux déposés au Musée Royal des Pays-Bas.

Notice des tableaux exposés au Musée d'Anvers, 1829.

Beitrag zur Insecten-fauna von Angola. Von Dr. W. F. Erichson.

Dissertation physique sur le flux et reflux de la Mer et sur d'autres sujets. Par M. Roubaix de Turcoin. 12mo.

Essai sur la Marne. Par M. A. Puvis. 8vo,

Cours gratuits de Sciences industrielles faits a l'hotel de Ville de Metz. 8vo.

Dissertation sur le tænia ou Ver-plat. Par Charles Dionis. 12 mo.

Lettres philosophiques sur la formation des sels et des crysteaux, &c. Par M. Bourguet.

Itineraires en France, pour l'etude de l'histoire naturelle et de la geologie. Par M. Néree Boubée. 12mo.

Essai sur le climat de Montpellier. Par Jacques Poiteven.

April 8th.

Special anatomy of the terrestrial Gasteropoda of the United States. By Joseph Leidy, M. D. From the author.

Journal of the Indian Archipelago and Eastern Asia. Vol. 4, Nos. 11, 12. From the Editor.

Thirtieth Annual Report of the Board of Direction of the Mercantile Library Association of New York, January, 1851. From the Association.

Quarterly Journal of the Geological Society. Vol. 6, No. 24. From the Society.

Transactions of the Zoological Society of London. Vol. 4, Part 1. 4to. From the Society.

Enumeration des Insectes qui consumment les tabacs. Par M. Guerin-Meneville. 8vo. From the author.

Proceedings of the American Association for the advancement of Science. 3d meeting, held at Charleston, S. S., March, 1850. From the Association.

Conspectus Generum Avium. (C. L. Bonaparte.) pp. 433—464. 8vo.

Notes on Hybridity, designed as a supplement to a memoir on that subject in the Charleston Med. Journal: and second letter on same subject to the editors of same. By S. G. Morton, M. D. From the author.

Oration by Hon. R. C. Winthrop, July 4th, 1848, on the occasion of laying the corner stone of the Washington Monument. From Mr. Varden, of Washington.

Oration by Hon. H. S. Foote, July 4th, 1850, at Monument Place. From the same.

Constitution and By-Laws of the National Institute. From the Institute.

Contributions to Ornithology. By Sir William Jardine. Part 7, 1850. From H. E. Strickland, Esq.

Catalogue of the Knowsley collection, pp. 25—40. From the Earl of Derby.

Microscopical examination of Soundings made by the U. S. Coast Survey. By Prof. J. W. Bailey. From the author.

On Mosasaurus and the allied new genera. By R. W. Gibbes, M. D. From the author.

Philyra. Auctor D. H. F. Delius. From Mr. Balliere.

Verhandlungen der Gesell. Naturforsch. Freunde in Berlin. Vol. 1, pt. 6. 4to. From the same.

Dr. Wilson presented the following on the usual condition:

Conchologia iconica. By Lovell Reeve. Parts 93, 94.

Traité élémentaire de Conchyliologie. Par G. P. Deshayes. Liv. 12.

Annals and Magazine of Nat. History. Vol. 7, 2d series. Nos. 37, 38.

Journal of the Franklin Institute. 3d series, Vol. 21, No. 3.

Revue et Magazin de Zoologie. Nos. 11, 12, 1850, No. 1, 1851.

Proceedings of the Zoological Society of London. (Illustrated.) Part 1, 1850.

Phycologia Britannica. By W. H. Harvey, M. D. Nos. 54, 55.

History of British Mollusca and their Shells. By Prof. Forbes and S. Hanley.
o. 35.

British Museum Catalogues: Amphibia, part 2; Mammalia, part 2; Homop-
ra, part 1; British Lepidoptera.

The London Athenæum, Feb., 1851.

Illustrations of British Mycology. By Mrs. T. J. Hussey. 2d series, part 1.

The genera of Diurnal Lepidoptera. By E. Doubleday; continued by A. O.
estwood. Nos. 39, 40.

Histoire naturelle gen. et partic. des Mollusques. Par M. Ferussac: continue
ar G. P. Deshayes, part 40.

Voyage en Abyssinie. Publié par M. Theophile Lefebvre: planches, livs.
7—31. folio.

Journal of the Royal Asiatic Society of Great Britain and Ireland. Vol. 12,
t. 2.

Journal of the Royal Agricultural Society of England. Vol. 11, pt. 2.

Bulletin des Sciences naturelles et de Geologie: publié sous la direction de M.
Baron Ferussac. Vols. 12, 13, 14, 25, 26, 27. 8vo.

Prodrome de Paléontologie statigraphique universelle des animaux mollusques
rayonnes. Par M. A. D'Orbigny. Vol. 2. 8vo.

Histoire naturelle des animaux sans vertebres. Par M. de Lamarck. Tome 6.

Annalen des Weiner Museums der Naturgeschichte. Vol. 1, No. 1; Vol. 2,
os. 2, 3. 4to.

Ostéographie, ou description iconographique comparee du squelette et du sys-
me dentaire des cinq classes d'animaux vertebres recents et fossiles. Par M.
Blainville. Texte liv. 24, 4to., planches liv. 24, folio.

Histoire naturelle des Iles Canaries. Par MM. Webb et Bertholet. Livs.
9—99. 4to.

Voyage au Pole Sud. Atlas Hydrographie. Folio.

Transactions of the Royal Irish Academy. Vols. 14, 15, 16. 4to.

Annales des Sciences naturelles. 1^{re}. serie, Tomes 13, 28, 29, 30, et index.

Comptes rendus, tome, 31, Nos. 23—27; tome 32, Nos. 1—5.

Nouveau Bulletin des Sciences, publié par la Société Philomatique de Paris.
ns. 1825, '26, '27, '32, '33. 4to.

April 15th.

The following were presented by M. Edward Wilson, on the usual condition:

The Coleopterist's Manual. By the Rev. F. W. Hope. Parts 1, 2, 3. 8vo.

An elementary course in Geology, Mineralogy and Physical Geography. By
avid T. Ansted. 8vo.

A manual of British Coleoptera or Beetles. By J. F. Stephens. 8vo.

Essay on the indigenous fossorial Hymenoptera. By W. E. Shuckard. 8vo.

Introduction to the study of Nature. By J. S. Bushman, M. D. 8vo.

A treatise on the coal field of South Wales. By Frederick Moses· 2d ed. 8vo.

The natural history of the insects mentioned in Shakspeare's Plays. By Robert
atterson. 12mo.

Letters on Entomology, intended for the amusement and instruction of young
ersons. 8vo.

Enumeration des genres de plantes cultivés au Museum d'hist. nat. de Paris.
ar M. A. Brongniart. 2d ed. 12mo.

Origine des fossiles et des Continents ou nouvelle theorie de la terre. Par M.
'Abbé Pachon. 12mo.

A manual of elementary Geology. By Sir Charles Lyell. 3d ed. 8vo.

A view of the present state of the Salmon and Channel Fisheries, and of the
tatute laws by which they are regulated. By J. Cornish. 8vo.

The natural history of the County of Stafford. By Robert Garner. 8vo.

Original matter contained in Lieut. Sutherland's Memoir on the Kaffirs, Hotten-
ts, and Bosjesmans of South Africa. 8vo.

A discourse on the studies of the University of Cambridge. By Adam Sedgwick. 6th ed. 8vo.

The British Coleoptera delineated. W. E. Schuckard, editor. 8vo.

Popular treatises on Science, written during the middle ages, in Anglo-Saxon, Anglo-Norman and English. By T. Wright. 8vo.

An essay on Electricity. By the late George Adams. 5th ed. 8vo.

Treatise on Falconry. By J. C. Belany. 8vo.

Description of the Feroe islands. By the Rev. J. Landt. Translated from the Danish. 8vo.

S. G. Gmelin's Reise durch Rusland zur Untersuchung der drey Natur-Reich. 4 vols. 4to.

Sketches of Vesuvius. By John Auldjo, Esq. 8vo.

Monographie des Cétoines et genres voisins. Par MM. Gory et Percheron. 8vo.

The British Desmidieæ. By J. Ralfs; the drawings by Edward Jenner. 8vo.

Travels into the interior of Brazil in 1836—'41. By George Gardner, M. D. 2d ed. 8vo.

De Noordsche Weereld, door S. De Vries. 4to.

Minus cognitarum Stirpium ac etiam rariorum εκφρασις. Fabio Columna autore. 4to.

Meteorological observations and essays. By J. F. Daniell. 2d ed. 8vo.

Natural history of the Lepidopterous insects of New South Wales. By J. W. Lewin. 4to.

History of the Royal Society of London, from its first rise. By Thomas Birch, M. D. 4 vols. 4to.

Getrue Abbildungen und naturhistorischer Beschreibung des Thierreichs aus den nördlichen Provinzen Russlands, vorzeiglich Liefland, Ehstland, und Kurland betreffend. Von Ernst W. Drümpelmann und W. C. Friebe. 2 vols. Folio.

The Geology and fossils of the Tertiary and Cretaceous formations of Sussex. By Frederick Dixon. 4to.

An introduction to Zoology. By P. H. Gosse. 2 vols. 8vo.

April 22d.

The studies of the medical man; an introductory address at the opening of the session, 1850, '51, at St. George's Hospital. By E. Lankaster, M. D. From the author.

Addresses delivered in the Ipswich Museum, March 9th, 1848. By Rev. J. S. Henslow. From Geo. Ransome, Esq.

Observations on the Fauna of Norfolk, and more particularly on the district of the Broads. By the Rev. Richard Lubbock. 8vo. From the same.

Six lectures on Astronomy at the Temperance Hall, Ipswich, March, 1848. By Geo. B. Airy. 8vo. From the same.

Notice of a species of Seal apparently new to the British Shores. By W. B. Clarke, M. D. From the same.

Proceedings of the Royal Irish Academy. Vol. 2. From Mr. Bell, of Dublin.

A new Dictionary of the English Language. By Charles Richardson. 2 vols. 4to. Deposited by Mr. Samuel Powel.

A general dictionary, historical and critical, in which a new and accurate translation of that of the celebrated Mr. Bayle, with corrections and observations, is included. 3 vols. folio, 1734. From Dr. J. C. Fisher.

Annals of the Minesota Historical Society. 2d ed. 1850. From the same.

Verhandlungen der Schweizerischen Naturforschenden Gesellschaft, 1847, '48, '49, '50, '51. From the Society.

Mittheilungen der Naturforschenden Gesellschaft in Bern aus dem Jahre, 1846. From the same.

Annals of the Lyceum of Nat. Hist. of New York. Vol. 5, No. 2. From the Lyceum.

Journal of the Franklin Institute, April, 1851. From Dr. Wilson.

Mr. Edward Wilson presented the following, on the usual condition:

Disputatio inaug. quædam de Hominum varietatibus et harum causas exponens. Auctore J. Hunter.

Encyclopédie d'histoire naturelle. Par le Dr. Chenu. Singes 1, 2, 3 series: Insects 1, 2, 3, 4 series. 8vo.

Prodrome d'une monographie des Méduses. Par R. P. Lesson.

Geological sections of Holyfield Hudgill Cross vein, and Silver band Lead Mines in Alston-Moor and Teesdale. By T. Sopwith. 4to.

De Holothuriis. Auctore G. F. Jaeger.

A tabular view of the principal fossiliferous deposites of the British Isles. By John Morris.

Nouveau systeme d'anatomie pathologique humaine et comparée. Par Felix Thibert.

General indexes to the 36 vols. of English Botany (Sowerby's).

A catalogue of the collection of foreign insects of the late John Francillon, Esq.

An account of the skeleton of the Mammoth. By Rembrandt Peale.

Catalogue of the collection of exotic Shells of A. L. Gubba, Esq. late of Havre de Grace.

Memoire sur les vaisseaux lymphatiques des oiseaux. Par M. Magendie.

Note sur les travaux sericicoles executés à la Magnanerie de St. Tulle (Basses Alpes.) Par M. Eugene Robert.

Lettre de M. H. D. de Blainville au sujet de l'Ornithorhynke.

Prodrome d'une monographie des Ammonites. Par M. H. de Blainville.

Monographia Serpentium Hungariæ. Auctore E. Frivaldsky.

Naumannia, Archiv fur die Ornithologie vorzügsweise Europa's. Heft 3.

Observations Neurologicæ ex Anatome comparata. Auctore J. G. Ebel, M. D.

Hymenoptera Britannica. Auctore A. H. Haliday. 2 fascic. 8vo.

Dissert. historico nat. sistens nova Testaceorum genera. Auctore L. M. Philipson.

The Philosophical Magazine and Annals of Philosophy, new series. Nos. 1—66.

The Annals of Philosophy, new series. Vols. 1—28. 8vo.

Index to Report and Minutes of evidence on the British Museum. Folio.

Report of the General Board of Health on the supply of water to the Metropolis (London,) and appendix. Nos. 1, 2, 3, 4. 8vo.

Die Drontheimischen Gesellschaft Schriften aus dem Danischen übersezt. Vols. 1, 2, 3, 8vo.

Researches in theoretical Geology. By H. T. de la Beche. 12mo.

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Narrative of an expedition into the interior of Africa in 1832, '33, '34. By Macgregor Laird and R. A. K. Oldfield. 2 vols. 8vo.

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Transactions of the Literary Society of Madras. Part 1. 4to.

Conchiliologie fossile et aperçu geognostique des formations du Plateau Wolhyni-Podolien. Par Fred. du Bois de Montpéreux. 4to.

A Journal of Nat. Philosophy, Chemistry and the Arts. By Wm. Nicholson. 5 vols. 4to.

Specchio delle Scienze o Giornale Encyclopedico di Sicilia. Nos. 1—11.

Provisional report on the Meteorological observations made at Calabra, Bombay, in 1844. By George Buist, LL. D.

Conchology, or the natural history of Shells. (Da Costa and Humphreys.) Folio.

A description of the principal picturesque beauties, antiquities, and geological phenomena of the Isle of Wight. By Sir Henry C. Englefield. Folio.

Report of the general meeting of members of Ipswich Museum, and six reports of lectures delivered at the same.

May 6th, 1851.

Dr. MORTON, President, in the Chair.

A letter dated Breslau, Sept. 2, 1850, from the Royal L. C. Academy of Sciences was read, acknowledging the receipt of Proceedings, Vol. 4, No. 8, Vol. 5, Nos. 2 and 3; also a second letter from the same, dated Breslau, Dec. 29th, 1850, accompanying Part 2, Vol. 2, of the Nova Acta of that Institution.

Dr. Leidy read a paper describing new species of Entozoa, &c., entitled "Contributions to Helminthology;" which was referred to Dr. Hallowell, Dr. Rand, and Dr. Bridges.

Dr. Leidy after some general remarks upon the transplantation of animal tissues, stated that about five months ago Dr. Horner removed from a female a scirrhus mamma, a portion of which, at his request, he took home for microscopic examination. In structure it proved to be composed of fibrous tissue and nucleated, elongated, or caudated cells. After the examination, about four hours subsequent to the removal of the tumor from the woman, Dr. L. inserted four pieces of the tumor, each half an inch long by one-eighth of an inch broad and thick, beneath the integument of the back of a large frog. Three of the fragments were

ERRATA.

Page 209, 7 lines from top, isoseoles, read isosceles.
" " 10 " " joints, " points.
" 210, 5 " from bottom, papulus, read Passalus.
" " 4 " " gulus, " Julus.
" 212, 21 " " 8, " 13, and 31, 51.
" 224, 10 and 11 lines from bottom, Aspidagaster, read Aspidogaster.

and with a few exceptions from books," proceeds to make the following observations of interest, on some plants of Burmah.

" On looking over Griffith's Medical Botany, which was recently put into my hands, it seems to me that our knowledge is very imperfect in that department

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Yesterday upon killing the frog, and opening the skin along the back, it was found that three of the scirrhus fragments had formed a vascular attachment with the integument, and for one half their length had had a large development of capillaries in them. Two of the fragments had also formed a vascular attachment to each other throughout their length. The fourth fragment had formed no attachment with the tissues of the frog, and had remained apparently unchanged. Upon examining the fragments with the microscope, it was found that the caudated cells had been entirely transformed into fibrous tissue.

Dr. L. exhibited a portion of the frog with the fragments of cancer attached. The net-work of blood-vessels pervading the pieces was beautifully distinct to the naked eye.

May 13th.

Vice-President Bridges in the Chair.

The Librarian announced that the Portrait of Mr. George Ord, which had been presented to the Society by that gentleman at the request of several members, had been received, and was now in the Hall.

Mr. Vaux read a letter addressed to him by the Rev. Francis Mason, American Missionary at Burmah, dated Maulmain, Feb. 15th, 1851.

Mr. Mason after observing that he had been "for more than twenty years in this 'sleepy hollow,' shut out from the world and libraries, and with a few exceptions from books," proceeds to make the following observations of interest, on some plants of Burmah.

"On looking over Griffith's Medical Botany, which was recently put into my hands, it seems to me that our knowledge is very imperfect in that department as well as in some others. The plant which produces the Siamese gamboge, for instance, is confessedly unknown. In the southern parts of these Provinces, near the Siamese boundary, there is a tree which produces a species of gamboge that cannot be distinguished from the gamboge that is brought from Siam; and in an article which was read before the Asiatic Society of Bengal, three or four years ago, I showed that that tree was *Garcinia elliptica*, a species named and described as a species imperfectly known by Dr. Wight; who was not at all aware that it produced gamboge. There can, I think, be little doubt, but that this is the tree which produces the Siamese gamboge. This was so clear to the members of the Asiatic Society, that the Secretary wrote me, 'Our best botanists here, consider that you have hit on the true tree at last.' Again, gum-kino was exported several years ago in considerable quantities from Maulmain, brought overland from the Shan States, and is produced so far as I can ascertain, from *Sterocarpus Wallichii;* yet this tree has no place in our Medical Floras.

I suspect that a large part of the crude camphor exported from China, and which is always referred to *Camphora officinarum*, is the product of one of the commonest weeds in Eastern India and China. In the early years of my residence at Yavoy, the Burmese pointed out to me a weed with leaves like mullen, which when bruised emits a strong odour of camphor. From it they told me they had been in the habit of distilling, from time immemorial, as good camphor, except that it was not so pure, as that which they saw in my medicine chest. Some of the Chinese settlers also say that the same plant abounds in China, and that camphor is made from it there. Mr. O'Riley, a sugar manufacturer at Amerst, made more than a hundred pounds of camphor from this weed, a few years ago, and sent a part of it to Calcutta for examination; and the official authorities reported on his specimens. 'In its refined form, it is identical in all its properties, with Chinese camphor.' Mr. O'Riley sent flowering specimens of the plant to Calcutta, and they were forwarded from thence to Dr. Voigt of Serampore, and the report added: 'Dr. Voigt states that it belongs to De Candolle's genus Blumea, and is, so far as he can see, a new species.' Not having books to enable me to determine the question of its being a new species or not, I left it in abeyance until I procured De Candolle's Prodromus, three or four years ago, and I was soon satisfied then, that it is the same plant as that which appeared in Wallich's catalogue, as *Conyza grandis*, and which De Candolle has described as *Blumea grandis*. Wallich's specimens were from Yavoy, without flowers, and De Candolle describes the leaf* as nine inches long with the petiole, by three wide, serrated, and bearing on the petiole five or six remote linear acute lobes; which corresponds precisely to some specimens of our camphor plant; but it does not correspond to any other species of Blumea in the Provinces. This plant probably covers more of the surface of the Tenasserim Provinces than any other weed. Wherever the trees are cut down to clear the land, it springs up so thick that scarcely any thing else can live with it; so that an old clearing looks in the distance like a field under cultivation."

A letter was read from the Royal Society of London, dated Feb.

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* "Cum petiolo 9 poll. longa, 3 poll. lata—serratis, petiolo lobulos, 5—6 distantes lineares acutos gerentibus."

h, 1851, acknowledging the receipt of the Proceedings Nos. 3 to 5,
. 5.

lso a letter from the Asiatic Society of Bengal, dated Feb. 21st,
1, acknowledging the receipt of the Journal Vols. 1 to 8, old series,
t 1, Vol. 1, new series, and Proceedings, Vols. 1, 2, 3, and Nos.
5, of Vol. 4.

n motion of Dr. Zantzinger, the thanks of the Society were pre-
ted to Mr. George Ord for the portrait received this evening.

May 16th.

Vice-President **Wetherill** in the Chair.

pon taking the chair, Mr. Wetherill announced the decease of the
sident of the Society, Dr. Samuel George Morton, which took place
is residence in Arch Street yesterday morning, after an illness of
four days. The present meeting had been convened for the pur-
of expressing the feelings of the members on this melancholy oc-
on.

r. Bridges in some very appropriate remarks on the character of
deceased, adverted to his long connexion with the institution, al-
t from its origin; his close adherence to its interests under the
ed and trying circumstances through which it had passed; having
essively filled its different offices, he had become the ornament of
prosperity, and died at last its President.

r. Charles D. Meigs expressed his deep and sincere regret for the
of Dr. Morton, and bore testimony to his great private worth, his
nent scientific and professional abilities, and offered the following
amble and Resolutions.

he Academy of Natural Sciences of Philadelphia being called upon
eplore the loss of its late respected and beloved President, Dr.
uel George Morton, and considering that event as of deep interest
he whole Republic of Letters; feeling that the eminent attainments
heir late Chief in the various departments of Literature and Science,
tled him to the respect and admiration of all the friends of learn-
; that his consistent course of virtue, his liberality and urbanity,
rned and illustrated the Academy over which he presided, and re-
ted honor upon its name, are deeply impressed by the irreparable
they, in common with all the friends of the Natural Sciences, have
ained by his death: Therefore,

esolved, That this Academy esteem the life of their late President
e for all men a shining example of earnest and successful zeal in the
uit and promotion of learning, in the cultivation of wisdom and
ue, and the practice of the highest liberality and benevolence.

esolved, That the Academy do cherish and revere the memory of
r deceased illustrious President, and that in order to commemorate

his name, a marble tablet with a suitable inscription be placed in the Hall of the Academy.

Resolved, That with heartfelt sympathy we present to his bereaved family, this expression of our admiration of him whose death deprives both them and our common country and the world, of one of the most meritorious of men.

The Preamble and Resolutions were unanimously adopted.

Dr. J. C. Fisher offered the following, which was also unanimously adopted.

Resolved, That a Committee be appointed to select a member to prepare a biographical memoir of our late President, Dr. Morton, and that the kindred societies in this city, of which he was a member, be invited to be present when it is read.

The Committee under this resolution was then appointed as follows; Dr. Jas. C. Fisher, Dr. R. Bridges, Dr. J. K. Mitchell, and Dr. Leidy.

On motion of Dr. Bridges, the Resolutions were ordered to be published in four daily papers of this city.

Dr. Horner offered the following, which was adopted.

Resolved, That when we adjourn, it shall be to meet in this Hall on Sunday afternoon next, 18th inst., at 3 o'clock, to attend, as a body, the funeral of our late lamented President.

Dr. Mitchell moved that the Chairman and Secretaries and three other members, be a committee to wait upon the family of Dr. Morton and testify the sympathy of the Society; which was adopted, and the following members appointed, Dr. Mitchell, Mr. Peterson, and Dr. Horner.

May 20th.

Vice-President Wetherill in the Chair.

Dr. Leidy remarked that in a recent visit to Dr. Wilson, near Newark, Delaware, while rambling in a neighboring wood, upon turning over a log, he discovered a mole cricket, (*Grillo-talpa Americana,*) standing very quietly at the mouth of a hole. Upon taking it up, the animal exhibited no signs of movement, though perfectly fresh and life-like in appearance. He took it home and next morning examined it, and found it still presenting no signs of life. Every part of the insect was perfect, not even the antennæ being broken. Upon feeling it, it was very hard and resistant, and on making an incision through the thorax, it exhaled a fungoid odor. The insect had been invaded with a parasitic fungus, which every where filled the animal, occupying the position of all the soft tissues, even into the tarsal joints. It formed a yellowish or cream-colored compact mass, and in the abdomen enclosed in its centre the stomachal teeth of the insect.

Examined microscopically, the fungus matter was found to consist of a mycelium of filaments for the most part simple, but occasionally branched, and elliptical or globular sporular bodies, averaging the 1-2333rd in. in diameter.

Mr. Isaac Lea stated that he had visited within a few days, the locality whence Dr. J. Y. Schelley had procured the reptilian fossil. It was a calcareous conglomerate, the rock being in place and forming a wall on the side of the road, and was not a boulder as had been supposed. No further traces of bones had since been discovered. Mr. Lea exhibited a specimen of the rock, and stated that he had now determined to name the fossil *Clepsysaurus pennsylvanicus*, from the peculiar form of the vertebra, which resembled an hour glass in shape.

On leave granted, Mr. Vaux moved that Mr. Pearsall be added to the Committee appointed to select a member to prepare a biographical memoir of the late Dr. Morton. Adopted.

On motion of Mr. Vaux, it was also resolved that a committee of five be appointed to select a suitable design for a tablet to the memory of Dr. Morton, to be placed in the Hall, and to carry out the resolution relating to this subject, adopted at the meeting of the Society held on the 16th inst.—Committee, Mr. Vaux, Dr. Bridges, Mr. Wetherill, Dr. Meigs, Mr. Phillips. On motion of Dr. Leidy, the Curators were added to the Committee.

May 27th.

Vice-President Wetherill in the Chair.

The Library Committee, to whom was referred the communication from the Historical Society of Pennsylvania, requesting the deposit with them of the Paris Moniteur belonging to the Academy, reported "that as said papers constitute part of a series in connection with the documentary History of the French Revolution, it would be inexpedient to separate them, and they would therefore respectfully decline complying with the request of the Historical Society." Adopted.

Dr. Fisher, from the Committee on the subject, reported that Dr. Charles D. Meigs had been unanimously chosen by the Committee to prepare a biographical memoir of Dr. Morton, and that Dr. Meigs had accepted the appointment.

The Committee to whom was referred the following paper by Dr. Leidy, reported in favor of publication in the Proceedings.

Contributions to Helminthology.

By Joseph Leidy, M. D.

Ascaris, *Linn.*

1. Ascaris alienata.—Rud. *Entoz. Syn.* p. 661; Dujardin *Hist. Nat. des Helminth.* p. 158.

Body nearly uniformly cylindrical, white; mouth prominent, with the three lips prominent and very distinct: no membranous or other appendages.

Female.—Body cylindrical to within four lines of the mouth, when it gradually becomes narrowed; posteriorly straight, abruptly narrowed into a very small obtuse tail, 1-5th of a line long from the anus. Whole length 4 inches 3 lines; breadth 1 and 1-5th lines.

Male.—Cylindrical, attenuated towards the extremities; posterior extremity incurved, without appendages; tail short, curved. Length 2 inches; breadth ¾ths of a line.

Habitation.—A male and female found in the intestine of Mephitis americana. Received from Prof. S. F. Baird, Carlisle, Pennsylvania.

Remark.—It corresponds in every particular except in size, being twice as large, with the *Ascaris alienata* obtained from Nasua rufa, described by Rudolphi.

2. Ascaris entomelas, *n. s.*—Body cylindroid, attenuated at each extremity, curved, whitish, with the black intestine visible through the translucent integument, without membranous appendages. Generative aperture posterior to the middle. Tail conical, pointed, 1-18th line long.

Length of female 1 to 1½ lines; breadth, ¼th of a line.

Ovum 1.333d in. long; 1-500th in. broad.

Habitation.—Lungs of Rana halecina.

Remarks.—Very distinct from Ascaris nigro-venosa, *Zeder*, which is three times as large, and possesses membranous appendages. The largest females, with the oviducts distended with eggs of Ascaris entomelas, do not measure over 1½ lines. It is also not to be confounded with Angiostoma entomelas, Duj., which, as a generic character, possesses a corneous capsule within the head.

Distomum, *Retzius.*

3. Distomum longum, *n. s.*—Body whitish, with the blackish ovaries showing through the anterior two-thirds, sub-cylindrical, compressed; posteriorly sub-ligulate, or spatulate, obtusely rounded; neck cylindrical. Oral acetabulum obliquely terminal, urceolate, broader than the neck, 3-5ths of a line in diameter. Ventral acetabulum, a little smaller, and from 1½ to two lines behind the former, orbicular, projecting, ½ a line in diameter. Generative aperture just anterior to the middle of the neck, or nearer the oral acetabulum.

Length 15 lines to 3 inches; breadth, 2-5ths to ¾ths of a line.

Habitation.—Six individuals found in the mouth of Esox estor, Cleveland, Ohio. Received from Prof. S. F. Baird.

Remarks.—This is a remarkable species of Distomum from the very great relative length to the breadth.

4. Distomum terreticolle, *Rud.* Entoz. Syn. p. 102; *Dujardin*, Hist. Nat. des Helm.; *Diesing*, Syst. Helm. p. 358.

Body subcylindric, light flesh color, posteriorly rounded. Ventral acetabulum ¾ths of a line behind the oral, ⅓d line in diameter. Oral acetabulum, ¼th of a line.

Length, 8 lines; breadth posteriorly, ½ line, anteriorly, ⅓d line.

Habitation.—Stomach of Esox reticulatus, *Lesueur.*

Remark.—The generative aperture is placed immediately in advance of the ventral acetabulum. When the animal contracts, the two acetabula are nearly brought into contact.

5. Distomum retusum.—*Duj.* Hist. Nat. des Helm. p. 405; *Diesing*, Syst. Helm. p.

Body whitish, with yellowish brown from the ova: oblong, sublinear, slightly narrowed anteriorly; posteriorly truncated, slightly sinuous. Oral acetabulum arger than the ventral. Posterior respiratory sinus very large.

Length ¾ to 1½ lines; breadth ½ line.

Hab.—Small intestine of Rana halecina.

6. Distomum cygnoides. *Zeder*, Nachtrag. p. 175; *Dujardin*, Hist. Nat. des Helm. p. 396; *Diesing*, Syst. Helm. p. 342.

Body yellowish white, posterior to ventral acetabulum sublinear, or compressed fusiform, subacute; neck cylindrical, translucent. Ventral acetabulum two to three times larger than the oral, cup-shaped.

Length 1½ to 4 lines; breadth 1-5th to ½ line.

Hab.—Urinary bladder of Rana pipiens, Salamandra maculata, and Salamandra (Ambystoma) rubra.

7. Distomum variegatum. *Rudolphi*, Syn. Ent. p. 90; *Dujardin*, Hist. Nat. des Helm. p. 416; *Diesing*, Syst. Helm. p. 354; Monostomum ellipticum, *Rud.* Entoz. Syn. p. 84; *Bremser*, Icon. Helm. pl. 8, fig. 12—14; *Diesing*, Syst. Helm. p. 322.

Body soft, oblong oval, slightly antero-posteriorly compressed; integument translucent, with the black oviduct, white ovary, and brownish or yellowish intestine visible; convex upon the under surface; posteriorly dilated, obtuse. Mouth small, round, with a thick crenated lip, subterminal. Male generative aperture immediately behind the mouth. Ventral acetabulum very small, round, 1½ lines from the mouth.

Length 1 to 4 lines; breadth of largest anteriorly 1 line, posteriorly 1½ lines; hickness ¾ of a line.

Hab.—Found frequently, in numbers from 1 to 6 in the lungs of Rana pipiens.

Remarks.—I was on the point of considering this entozoon as a Monostomum, when I was led to examine it more carefully by the observation of Dujardin,* that it had been described by authors under the name of M. ellipticum, because the ventral acetabulum is very small and difficult to perceive. The latter I found without difficulty in the position stated in the description.

Echinorhynchus, *Müller*.

8. Echinorhynchus emydis, *n. s.* Body white, cylindrical, slightly narrowed posteriorly, recurved, broadly annulated, smooth; posterior extremity dilated into a small globular portion terminating abruptly or in a short, conical, obtuse point. Proboscis sub-globular, or oval, with a single transverse row of six strong hooklets and a row in a rudimentary condition; neck very short.

Length 2 to 8 lines; breadth ¼ to ½ of a line.

Hab.— Seventeen individuals were obtained from the commencement of the small intestine of Emys geographica. Received from Prof. S. F. Baird.

Remark.—This is, so far as I can ascertain, the first Echinorhynchus which has been detected in the Emydæ.

9. Echinorhynchus lateralis, *n. s.* Body cylindroid, or subfusiform; posteriorly narrowed, with an obtusely rounded extremity. Proboscis cylindrical, ½ of

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* Hist. Nat. des Hem. p. 416.

a line long, lateral, or subterminal, or transversely projected, furnished with 12 transverse rows of strong hooklets, 6 in each row, alternating; neck short. Male without copulatory appendage.

Body from 2 lines to 1 inch in length; breadth anteriorly from ½ to 3-5ths of a line; breadth posteriorly from 1-5th to 2-5ths of a line.

Hab.—Seventy-six individuals were found within the intestine, and according to Prof. Baird, from whom they were received, also attached to the integument upon the exterior of the body, of Salmo fontinalis.

Remark.—Closely allied to E. angustatus, *Rud.*

10. Echinorhynchus proteus. *Westrumb*, De Helm. Acanth. p. 37; *Duj.* Hist. Nat. des Helminthes, p. 529.

Body orange color, fusiform; anteriorly slightly spherically dilated; posteriorly obtusely rounded. Proboscis cylindrical, with twelve to twenty transverse rows of hooklets, transversely projected, yellow. Neck long, posterior three-fourths filiform, anterior fourth dilated into a spherical vesicle.

Length of body 3 to 6 lines; neck 2 to 3 lines long, 1-6th line broad posteriorly.

Hab.—Found very frequently in the large intestine, often in great numbers, of Labrax lineatus.

Thelastoma, *Leidy.*

11. Thelastoma brevicaudatum, *n. s.* Body white, cylindrical, anterior to commencement of ventriculus rapidly narrowed, conoidal; posteriorly abruptly rounded, with a very short spiculate tail. Generative aperture just posterior to middle. Anus just anterior to posterior rounded termination. Ventriculus broadly dilated at commencement, and moderately so at termination.

Length of body 1½ to 2 lines; anterior to ventriculus 1-50th inch; from anus to end of tail 1-200th in.; tail 1-285th in. long; breadth of body just above anus 1-133d in.; at middle 1-80th in.; at commencement of ventriculus 1-75th in.; cylindrical portion of œsophagus 1-66th in. long by 1-666th in. broad; pyriform portion 1-250th in. long by 1-285th in. broad. Ovum semi-oval, 1-285th in. long by 1.1000th in broad.

Hab.—Found in numbers from one to four in the intestine of larvæ of a large lamellicorn insect, found by my friend Mr. S. Powel in earth mould near Philadelphia.

Gregarina, *Dufour.*

12. Gregarina.—Body white, cylindro-fusiform. Superior division presenting four sides of a hexahedron, subacute. Nuclear body of inferior division transparent, globular or elliptical, containing several coarse granules.

Length from 1-66th in. to 1½ lines; head 1-400th in. to 1-133d in. long by 1-285th in. to 1-111th in. broad. Anterior portion of inferior division 1-200th in. to 1-86th in. broad; posterior portion 1-666th in. to 1-250th in. broad. Longitudinal lines of inferior division more distinct than those of the upper division, 1-8000th in. apart.

Hab.—Found in the same insect as the preceding.

Remark.—Since the discovery* of the beautiful, parallel, longitudinal lines of the inferior division of the body of Gregarina, after a careful examination I have come to the conclusien that they also exist upon the superior division.

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* Proc. Acad. Nat. Sci., Vol. 4, p. 232.

Astacobdella, *Vallot*.

13. Astacobdella Philadelphica, *n. s.* Body whitish, translucent, sides nearly parallel, a little broader posteriorly, 16 alternately broad and narrow segments exclusive of head and posterior end. Head campanulate, terminated by a circular or elliptical crenated lip fringed with very minute stiff hairs, 1-2000th in. long. Acetabulum circular, 1-6th to ¼ line in diameter. Mouth elliptical. Dental plates brown, nearly equal, forming an isoscoles triangle, with the base longest and attached. Apex of superior plate ending in a sharp conical point, with several very minute denticulations on each side. Apex of inferior plate bifurcated into two joints, with two minute denticulations on each side. Stomach capacious, nearly filling the anterior 8 alternately broad and narrow segments posterior to the head. Anus dorsal, 1-5th of a line from the acetabulum. Generative aperture ventral, anterior to the anal aperture.

Length 1 to 4 lines; breadth 1-6th to ½ line. Head 1-6th to ½ line long. Ovum attached by a pedicle, with an operculum pointed at summit. From base of attachment to point of opercle, 1-5th line. Length of body of ovum 1-6th line, breadth 1-8th line.

Hab.—Found frequently in numbers from one to several dozen upon any part of the exterior of the body of Astacus Bartonii, *Fab.*, but more especially upon the inferior surface and the branchiæ.

Malacobdella, *Blainville*.

14. Malacobdella grossa, *Blainville*. Hirudo grossa *Müller*, Zool. Dan. Malacobdella grossa, *Blainville*, Dic. Sc. Nat. xlviii. 270; *Moquin-Tandon*, Monog. Hirud.; *Diesing* Syst. Helm.; Phylline grossa, *Johnston*, Lond. Mag. Nat. Hist. iii. 6—10.

Body yellowish white, compressed pyriform, oblong, or elliptical. Integument translucent. Acetabulum yellowish, circular, ½ to 2½ or 3 lines in diameter. Protractile proboscis cylindrical, from ½ to 3 lines long. Intestine tortuous. Ovaries upon each side iron grey.

Length from 2 lines to 1 inch, occasionally 1½ inches; breadth from ½ a line to 5 or even 7 lines.

Hab.—Found frequently, usually singly, adhering to the mantle of Venus mercenaria, *Lin.* and Venus praeparca, *Say*.

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On motion of Dr. Zantzinger, it was *Resolved*, that a committee consisting of Mr. George Ord, Dr. J. C. Fisher, Dr. Leidy, and Mr. Powel, be appointed to act in conjunction with the Entomological Committee, to make observations on the *Cicada septendecim* now making its appearance in this section of country.

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ELECTION.

Dr. Franklin B. Hough, of St. Lawrence Co., New York, was elected a *Correspondent* of the Academy.

June 3rd.

Vice-President Bridges in the Chair.

A letter was read from Edward Wilson, Esq., dated Lydstip House, Pembrokeshire, Wales, 15th April, 1851, giving information of a case containing books and specimens of Natural History, which he had forwarded for the Academy.

Also a letter from the President of the National Society of Agriculture, &c., of Lyons, dated 23rd December, 1850, accompanying the donation by that Society, of its Annals for 1849, and '50.

Mr. Cassin read a communication from Col. Geo. A. McCall, U. S. A., entitled "Some account of Birds found in Western Texas and New Mexico, with descriptions of new species;" which was intended for publication in the Proceedings, and referred to the following committee: Mr. Cassin, Dr. Watson and Mr. E. Harris.

Dr. J. K. Mitchell exhibited a specimen of a fungus growing upon a piece of decayed white-oak wood, which when recent is so luminous as to attract insects to it at night.

Dr. Leidy remarked, that it had occurred to him whilst examining the mole cricket, referred to at the meeting of May 20th, that if the fragments of the insect were placed under favorable conditions, the fungoid matter in the interior of the insect might develope itself into an external form of fungus. He accordingly placed them in a small glass case, with some moist sphagnum, and allowed them to remain until the present time. Dr. L. exhibited the glass case with the fragments, each having sprouting out of it one, two, or three, elongated, conical stipes of a cream color, from 3 lines to 1 inch long, and from ½ a line to 1½ lines in diameter. Dr. Leidy continued, in examining insects for entophyta and entozoa, he had found the hemiptera remarkably free from them, which he considers an important fact. Those insects which eat large quantities of vegetable solid food, especially such as eat decaying substances, are very much infected with parasites. The spontaneous generation of entophyta and entozoa finds but few advocates at the present day. Late researches lead us to suspect that many, if not all, entozoa, pasa part of their life out of the animals in which they are known as parasites, under forms different from those when within the animals.

The entrance of the parasites into other animals is effected probably in two ways: with the food of the latter, or by boring from the exterior. The former method is probably the most frequent in ærial animals; and both methods are frequent in aquatic animals, because, in the latter case, the water affords a good vehicle for the approach of the parasites to any part of the body of the animals to be infected.

As hemipterous insects suck the juices only of plants or animals, through a delicate proboscis, they are placed under circumstances the most favorable of all animals to avoid taking in with their food, ova, spores, or developed animals and plants of a parasitic character; whilst insects like papulus, crickets, etc., or gulus amongst myriapoda, from their eating decaying substances, swallowing large morsels of such food, are very apt to take in parasites.

Frequently I have detected adhering to insects and annelida, while living, cryptogamic sporules, which under favorable circumstances, before or after the death of the animal, undergo development into the perfect plant. House-flies, and especially earth-worms, are very liable to the growth of Achlya upon them, and sometimes I have even detected the growth of the latter upon the surface of earth worms still living.

Mr. Lea stated that during his recent visit to Reading, Penn., he had discovered there a new locality for Zircon, a specimen of which he exhibited, and also a specimen from another unrecorded locality, the Yellow Springs.

Dr. Burnett, of Boston, made a communication on the subject of his recent microscopic examination of the Cicada septendecim, especially of the alimentary canal and sexual organs, and of the apparatus in the male for producing sound.

The Librarian announced the donation to the Academy of a portrait of its late President, Dr. Samuel George Morton, which had been executed under the direction of a committee consisting of Dr. Zantzinger, Mr. J. Cooke, and Mr. J. Lambert, appointed at an informal meeting of the Society, held for that purpose in December 1850. The portrait was painted by Mr. Paul Weber, of Philadelphia County, and is a very faithful likeness. An earlier presentation of the portrait had been unavoidably prevented. The following members are the donors: William Hembel, George W. Carpenter, William S. Vaux, J. H. B. McClellan, George B. Wood, William S. Zantzinger, John Cooke, William Parker Foulke, Jr., Alexander Biddle, E. J. Lewis, Thomas Fisher, Thomas B. Wilson, John S. Phillips, Robert Pearsall, Robert Bridges, A. L. Elwyn, Samuel Ashmead, and J. Price Wetherill.

June 10th.

Vice-President Bridges in the Chair.

Letters were read:—

From the Librarian of the British Museum, dated 19th May, 1851, acknowledging the receipt of late Nos. of the Proceedings.

From the Librarian of the New York State Library, dated Albany, June 3rd, 1851, acknowledging the receipt of last No. of the Proceedings.

From Mr. John Hooper, dated New York, June 5th, 1851, accompanying an additional collection of American Algæ, and also referring to a species of Petrel supposed to be new, from the Florida coast; abdomen white, toes fastigiate, web extending nearly to the claws, claws very short and even in length, size much larger than the stormy Petrel.

From Edward Wilson, Esq., dated Lydstip House, Wales, May 14th, 1851, enclosing bill of lading and invoice of a case of books intended for the Academy.

Dr. Horner exhibited a portion of skin affected with the disease called Nigrities, taken from the cheek of a white man; a part originally white which had become black, occasioned by the actual deposit of pigmentum nigrum in the rete mucosum.

June 17th.

Dr. Leidy read a continuation of his paper entitled "Contributions to Helminthology;" which was referred to Drs. Bridges, Ruschenberger and Fisher.

Dr. Leidy stated that he had examined microscopically, the specimen of *nigrities* which had been exhibited by Prof. Horner at the last meeting; and that it proved to be a true deposit of pigmentum nigrum in rete mucosum.

A letter was read from the Rec. Sec. of the Penna. State Med. Soc., dated Philadelphia, June 10th, 1851, transmitting a resolution of thanks from that Society for an invitation to visit the Museum of the Academy.

Dr. Leidy stated he had repeated the experiment of introducing cancerous matter beneath the integument of a frog, which was first announced to the Academy, May 6th.

The cancerous matter was a fragment of encephaloid, taken from a female after death, by Dr. Henry H. Smith. It was almost as soft as cerebral substance. Beneath the microscope it exhibited a structure of very delicate organic cells, containing numerous granules and one of two nuclei.

A portion ¾ths of an inch long, by ¼th of an inch broad, was inserted under the skin of the back of a frog, on May 8th, 34 hours after its removal from the body of the female. This frog, still living, Dr. L. exhibited to the members, and by an incision through the integument, presented to view the fragment of cancer which had been introduced, and which had not only formed a vascular attachment to the integument, but for one half itself was of a fine red color from the net-work of capillaries which had become developed within it. The fragment had not increased in size. A number of its structural cells remained unchanged, but others had broken down into granular masses.

Dr. L. observed, the experiment not only proved the independent vitality of tissues, which was generally admitted, but also rendered it exceedingly probable that cancer was inoculable, for, as in the experiments, the cancerous fragments continued to live when introduced into cold-blooded animals, they would probably not only continue to live when introduced into warm-blooded animals, but would grow or increase in size.

Dr. Zantzinger announced to the Society the decease of William Hembel, Esq., which occurred on the 12th inst., at his residence in this city, at the advanced age of 88 years. His long connection with the Institution, his liberality to it on many occasions, his position as its President for nine years, and his scientific and literary acquirements, eminently entitled him to honorable mention on the present occasion.

The following Preamble and Resolutions were then offered on the part of Mr. George Ord, and unanimously adopted.

The Academy deeply sensible of the death of their venerable member, are impelled by a sense of duty, to give formal expression of their sorrow at the loss of one, who, during the period of twenty-six years, was zealously active in his exertions to advance those branches of knowledge for the cultivation of which this Institution was created. It is, therefore,

Resolved, That the Academy, in mourning the departure of a friend whose long life was signalized by his devotion to scientific pursuits, derive consolation from the reflection that their steadfast benefactor was as conspicuous for his efficient benevolence, as for his integrity and social virtues.

Resolved, That a copy of the foregoing, be transmitted to the family of the deceased.

June 24th.

The Committee to which was referred the communication of Col. McCall on Birds of Mexico, reported in favor of publication in the Proceedings.

Some Remarks on the Habits, &c., of Birds met with in Western Texas, between San Antonio and the Rio Grande, and in New Mexico; with descriptions of several species believed to have been hitherto undescribed.

By Col. Geo. A. McCall, Inspector-General, U. S. Army.

Falco, *Linn.*

1. F. Perigrinus, *Linn.* Perigrine Falcon.

In passing and re-passing through this extensive range of country, during a period of twelve months, I met with this Falcon but once—at Santa Fé, in the month of June. Here, two were seen; one of which was killed. This proved to be a female, of immature age and plumage, answering to the following description:

Length, 17 3-10ths inches; alar stretch, 38 5-10ths inches; front, eyebrows, lores, chin, throat, and a crescent around the occiput, extending to the eyes, light brownish white; head, back, scapulars, greater and lesser wing coverts and tail coverts dark dusky, each feather margined with light brown, giving a mottled appearance; primaries, secondaries, tertials dark dusky, broadly and closely barred with pale brown; tail dusky brown, tipped with paler brown, and all, except the two middle feathers, thickly barred on the inner vanes with pale brown; all the lower parts brownish white, striped with dark brown; under wing coverts dark dusky, each feather with two to four spots of dull white, and edged with the same; cere greenish yellow; feet lighter; iris hazle; middle toe and nail 2 7-10ths in.

Circus, *Lacep.*

2. C. Cyaneus, *Linn.* Marsh Hawk.

The Harrier I found in *very* great numbers on the plains stretching from the Pecos river to the Apache mountains, in February; whereas in October following but few were seen in the same region; stragglers were, however, met with in the lower plains, everywhere.

Athene, *Bois.*

3. A. Hypugœa, *Bonap,* [S. Cunicularia, *Gmel.*] Burrowing Owl.

This singular little owl I found, occasionally, along the Rio Grande, from Val Verde to Santa Fé, and quite abundant in the Valley of Las Vegas. It was abroad at all hours of the day, and often amused me with its odd manners; taking wing at the near approach of my horse, and again alighting at the distance of a few yards, when it would face towards me and make, almost uniformly, three distinct and formal bows, with a mock solemnity that was irresistably ludicrous. Between sunset and dark, however, I always observed them to be most numerous; and at this hour they were, also, more shy and less ceremonious.

There is a general impression, that this owl habitually takes up its abode in the dominions of the "*Prairie Dog,*" where, in company with the Rattlesnake, it feeds freely upon the young marmots. That it has been found, in some regions, in the *dog towns,* seems to be established on reliable authority; indeed I have conversed with more than one person who was a witness to the fact. Still, I am rather disposed to look upon the fact as an accidental occurrence, than as an instinctive or positive habit of the bird. My own experience, too, tends to anything but the corroboration of this testimony; for I have met with *Hypugæa* in various places, from Fort Gibson, in Arkansas, to the Rocky Mountains; and it has never, in one instance, been my fortune to find it in company with the Marmot.

On the high, dry plains between the Pecos river and the Apache mountains, I rode for days through the *dog towns,* as they are called, and did not see a single owl, although the whole land seemed vivacious with marmots. Again; both on the east and west of the Valley of Las Vegas, where, as already observed, this owl is found in great numbers, there are within a few miles of the edge of the valley, on the high dry plains, extensive settlements of the marmots; and yet I never saw an owl about their burrows, in repeatedly passing through them. Nor is the most usual food of this owl found on high sandy plains; but in low lands, near water courses; and here I have always found him most numerous. With a view to satisfy my own mind on this point, I studied these animals closely, on this expedition; in the northern parts of New Mexico, in the months of August and September; and in the Apache country in February and October.

It may not, perhaps, be amiss to remark here, with respect to the reported *hibernating* habits of the marmot, [Arctomys Ludoviciana,] that on the high plains of the Limpia, and also on those among the Apache mountains, these frolicksome little fellows made their appearance above ground, in crowds, soon after sunrise, and remained abroad, frisking and barking, until about 2 o'clock, P. M., in the month of February, although the nights and mornings were cold—the thermometer sometimes indicating a temperature 10° or 12° below the freezing point, at sunrise. What may be their habits in higher latitudes, where the earth is for long periods covered with deep snows, I have never had an opportunity to observe in winter.

CAPRIMULGUS, *Linn.*

4. C. CAROLINENSIS, *Briss.* Chuck-Wills-Widow.

A few were met with in New Mexico, in June and July.

CHORDEILES, *Swains.*

5. C. VIRGINIANUS, *Briss.* Night Hawk.

Numerous about Santa Fé, and generally throughout N. Mexico, during the summer months.

CHELIDON, *Bois.*

6. C. BICOLOR, *Vieill.* White Bellied Swallow.

Appeared at Santa Fé in May, and nested there, but was not numerous.

COTYLE, *Bois.*

7. C. RIPARIA, *Bois.* Bank Swallow.

Was more numerous than the last; nesting also near Santa Fé.

HIRUNDO, *Linn.*

8. H. RUFA, *Linn.* Barn Swallow.

This species was rather common at Santa Fé, nesting there.

SITTA, *Linn.*

9. S. CAROLINENSIS, *Briss.* Carolina or White Breasted Nuthatch.

A few were seen in the mountains west of Santa Fé; where they nested.

10. S. CANADENSIS, *Linn.* Canada, or Red Bellied Nuthatch,

Not more than three or four were seen in N. Mexico.

ANTHUS, *Briss.*

11. A. LUDOVICIANUS, *Licht.* Brown, or American Titlark.

This little wanderer I saw in N. Mexico, in small flocks, late in autumn.

SIALIA, *Swains.*

12. S. ARCTICA, *Swains.* Arctic Blue Bird.

Was first seen on the Rio Grande, about 60 miles below El Paso del Norte. Here they were abundant in the month of March, and were usually collected near the river bank, before sunset, in search of insects; when they proved themselves expert in the pursuit, darting from the tops of tall bushes to seize their prey upon the wing, and returning again, in the manner of true fly-catchers. In May, they made their appearance at Santa Fé—but were not numerous. Immediately on their arrival, they prepared their nests; one of these, built in the gravel bank of an *arroyo seco* or dry creek, I examined. It was composed entirely of dry grass; but it was well formed, having high walls of considerable thickness, and contained six eggs of a marine-blue color. The hole in which the nest was found, and which was in the side of a perpendicular bank, about five feet from the bottom, was four inches in diameter and ten in depth. Each brood, (generally seven or eight, including the old birds,) seemed to keep united during the summer. About the first of September, they began to move off.

Mimus, *Briss.*

13. M. montanus, *Bonap.* Mountain Mockingbird.

I found this gallant bird at times, though rarely, on the mountain sides in Northern New Mexico. I could not but admire his song, and his gay, dashing character, although I was constrained to admit the inferiority of his notes to those of his inimitable congener.

14. M. polyglottis, *Boie.* The Mockingbird.

This bird was also rare in New Mexico, although it is abundant on the south western frontier of Texas.

Cinclus, *Bechst.*

15. C. Americanus, *Swains.* American Dipper.

One pair, only, of C. A. was seen. These were found on a very rocky and precipitous mountain stream, some twelve miles west of Santa Fé.

Milvulus, *Swains.*

16. M. forficatus, *Swains.* Swallow-tailed Fly-catcher.

This graceful bird was found in the south-western part of Texas, near Lavaca, in December.

Tyrannus, *Vieill.*

17. T. verticalis, *Say.* Arkansas Fly-catcher.

Was found in Northern New Mexico, in August and September, in small flocks.

Tyrannula, *Swains.*

18. T. Saya, *Swains.* Say's Fly-catcher.

Was met with occasionally in the mountains near Santa Fé.

Cyanocorax, *Boie.*

20. C. Stelleri, *Gmel.* Steller's Jay.

Was rather common along the mountain sides, between Santa Fé and Las Vegas, in the months of August and September.

21. C. ultramarinus, *Bonap.* Ultramarine Jay.

This Jay, also, was seen in the same range with the preceding, during summer.

21. C. Cassinii, *Nobis.* Cassin's Jay.

Length 11 7-10ths inches; alar stretch 18 inches. Upper parts slate blue; front and crown darker, almost black; chin and throat greyish white; cheeks and sides of neck light blue; wings same as back, the quills dusky on the inner vanes; below slate color, lighter than above; iris dark brown; bill and feet black.

This Jay first made its appearance, about Santa Fé, in April, and remained there, in considerable numbers, during the summer. It nested and passed the midday in the highest mountains, coming down their sides upon the hills to feed, morning and evening. At these times they moved in large, loose flocks, alternately alighting to pick up an insect or a lizard, and again passing to the front; keeping up, the while, a regular cry, in a rather low plaintive tone, very different from the *Blue Jay*. In this way they generally passed some time before sunset amongst the scrubby white cedars of the hills, and then returned to the mountains to roost. The bird from which the above description was taken, had, when killed, just swallowed, entire, a "*horned frog*," or lizard, [*Agama Cornuta*] 2½ inches in length.

I desire to name this species, which is believed to be hitherto undescribed, after Mr. John Cassin, of Philadelphia, to whose knowledge and indefatigable industry the Academy, of which I have the honor to be a corresponding member, is so greatly indebted in the department of Ornithology.

Nucifraga, *Briss.*

23. N. Columbiana, Wils. Clark's Crow, or American Nutcracker.

The habits of this bird I found, in some respects, resembling the preceding; the character of its flight, however, is quite different, partaking somewhat of the undulating motion of the larger woodpeckers. I met with several flocks in the high pine forests east of Santa Fé, and on the Taos mountain.

Corvus, *Linn.*

24. C. corax, *Linn.* Raven.

The Raven I found everywhere throughout Texas and New Mexico.

25. C. Americanus, *Aud.* Common Crow.

This relative of the foregoing, I met almost as universally in the regions just named.

It has been remarked by our most distinguished Ornithologist, Wilson, in speaking of the Raven, that "it is a remarkable fact, that where they (the ravens) so abound, the common crow seldom makes its appearance; being intimidated, it is conjectured, by the superior size and strength of the former, or by an antipathy which the two species manifest towards each other." This conclusion I believe to be an error, into which this close observer and most accurate delineator was doubtless led, by some singularity of circumstances that does not often obtain: for I have generally found rather a social feeling existing between these *congeners*, arising, probably, from the gregarious disposition of each, and the similarity of their food. On reference to my copy of Wilson's work, I find the following note on the margin, which it may not be altogether amiss to transcribe: "At Fort Gibson, in the Cherokee country, Arkansas Ter., the ravens were more numerous than in any other part of the country I have ever visited; the crows also were very abundant there. During a period of two years and a half that I was at that post, I daily saw the ravens and crows feeding amicably on the same ground, and parched upon the same trees. I have also observed the same thing here.—Dated, Fort Scott, Osage country, March, 1845."

I may say further, that the same observations were made in Texas and N. Mexico.

Pica, *Briss.*

26. P. melanoleuca, *Vieill.* Common Magpie.

One pair of these birds was seen near Turkey Creek, in Western Texas, early in November, in the latitude of about 29° 15′. And the fact is only mentioned on account of the rare occurrence of meeting a Magpie so far South. A storm from the North had been prevailing on the plains for three days, and had no doubt brought them with it, from the upper country. During the previous winter none had been seen in N. Mexico, as low as 36° lat.

Sturnella, *Vieill.*

27. S. neglecta, *Aud.* Western Meadow Lark.

This bird appeared, in the month of February, in great numbers between the

Leona and San Pedro rivers, (western Texas,) and was more or less common on the whole route from Lavaca to Santa Fé. The song, I think, is superior to that of S. Ludoviciana. The only place at which I heard it was at Santa Fé, in the spring months.

Scolecophagus, *Swains.*

28. S. ferrugineus, *Swains.* Rusty Blackbird.

Was rather common along the Rio Grande to Santa Fé.

Quiscalus, *Vieill.*

29. Q. major, *Vieill.* Boat-tailed Blackbird.

Was seen as far north as San Elizario, on the Rio Grande, lat 31 deg. 40 min. I am induced to think it a rare visitor even here. I saw them in great numbers, on a former occasion, near Matamoras, where they nested in large congregations.

Molothrus, *Swains.*

30. M. pecoris, *Swains.* Cow Blackbird.

Seen in various parts of N. Mexico; not numerous.

Agelaius, *Vieill.*

31. A. zanthocephalus, *Bonap.* Yellow-headed Blackbird.

32. A. Phœniceus, *Vieill.* Red-winged Blackbird.

Were found only occasionally in N. Mexico; more common in Southern Texas.

Calamospiza, *Bonap.*

33. C. bicolor *Nutt.* Prairie Reedbird.

I first met with this bird on the Rio Grande, between Santa Fé and Cañada, in September, when several small flocks were seen. I again found them on the Rio Puerco, in October. Their note and flight reminded me at once of our *D. Oryzivora;* but I found their flesh very inferior in delicacy and flavor to the latter.

Fringilla, *Linn.*

34. F. Oregona, *Towns.* Oregon Snow Bird.

Common near Santa Fé, in winter.

Pipilo, *Vieill.*

35. P. arcticus, *Swains.* Arctic Ground Finch.

I found perhaps half a dozen individuals of this species about Santa Fé, in May.

Chondestes, *Swains.*

36. C. Grammaca, Say. Lark Finch.

Was found, in moderate numbers, on the plains near Santa Fé, in May and June, when its pleasing song and gay manners attracted attention.

Otocoris, *Bonap.*

37. O. alpestris, *Bonap.* Shore Lark.

Appeared about Santa Fé in April, and became quite numerous in that region in May. Was scarce in the autumn.

38. O. ?occidentalis.* Probably the young of a species not heretofore described.

The bird from which the following description was taken, was shot near Santa Fé, in the month of July. It had, in some respects, the appearance of an adult bird, or at least a bird of the preceding year, although its general markings, to judge from analogy, would indicate a young bird. Yet, judging from the firmness of its bones, appearance of its bill, and a slight abrasion of the ends of the tail feathers, I did not, at the time, take it to be a young bird.

Its length (when killed) was 7 7-10ths inches; alar stretch 11 inches; wing, from flexure, 3 7-10ths; above, light brown, each feather being dark dusky near the tip, the extreme tip white—giving the appearance of a mixture of light and dark brown, thickly speckled with white; in this respect resembling the young of the *Shore Lark*; the greater and lesser wing coverts broadly edged with yellowish white, and tipped with pure white, forming two distinct bars, most apparent when the wing is extended; the second primary longest, the third shorter than the first, the outer vane of the latter white; remaining wing feathers edged with whitish, broadest on the tertials; tail of twelve feathers, even, the two middle ones light brown, edged with whitish, the remainder dark dusky, the two exterior ones being white on the outer vanes; all the underparts pale brownish white, most clear at the lower extreme; bill slender and slightly curved, of a horn color above, and lighter below; eyebrows, extending back of the eyes, whitish: irides dark hazel; legs and feet nearly black; hind nail longer than the toe.

The difference between this bird and the young of the Shore Lark, is in the different dimensions, and in the whole of the under parts being whitish; but more particularly in the length and shape of the bill, which is longer, more slender, and rather more curved above than that of the Shore Lark, either young or old.

It is believed to be of a species of the genus Otocoris, hitherto unknown to science.

Carpodacus, *Kaup.*

[Erythrospiza, *Bonap.*]

39. C. frontalis, *Say*. Crimson Fronted Finch.

I found this charming little finch abundant at Santa Fé, where they commenced nesting in March, although the weather was still wintry, and so continued, with frequent snow storms, for more than a month. Notwithstanding this, the song of the male failed not to cheer his mate, during incubation, with the liveliest melody. The notes often reminded me of the soft trill of the house wren, and as often of the clear warble of the canary. The males of the last year, though mated and apparently equally happy and quite as assiduous as their seniors, were not yet in full plumage, having little or nothing of the red colors that mark the adult birds.

The nests, which were stuck into every cranny about the eves and porticos of the houses throughout town, were variously composed, of dry grass, fine roots, horse-hair, long pieces of cotton twine, or strips of old calico; in fine, of countless odds and ends, that were picked up about the yards; these were curiously and firmly interwoven, so as to make a warm and comfortable abode for the new comers. Eggs, four or five, pale blue, slightly marked on the larger end. The young were able to fly by the middle or latter part of April. A second brood, and, in some cases, I believe, a third was raised during the summer; as not a few of them continued to incubate until some time in the month of August. Before the latter part of September, however, nearly all of them had disappeared from about Santa Fé.

40. C. obscurus, *Nobis*. Dusky Finch.

Length (when killed) 6 inches; wing 2 8-10ths inches; front, crown and back, dark brownish ash, striped with dark dusky brown; wings and tail dusky brown, each feather edged with brownish white; the greater and lesser wing coverts more broadly edged with the same, making two faint bars on the wing; all the under parts dull white, striped with dark dusky brown; tail slightly forked; bill slightly curved, upper mandible dusky, lower mandible paler, inclining to yellow; iris hazel; feet dark dusky. This was the female.

The male, though with lighter colors, did not appear to differ greatly from the female; nor could I, at a short distance, distinguish the usual tinge of red that marks this genus.

The song of the male consists of a few pleasing notes, without the volume or compass of voice of the preceding species. I was much disappointed in not being able to secure the male. I saw but one pair; and after following them for some time and observing their habits; having them in line, I shot the female, from my horse, with a pistol, whereupon the male took wing, and eluded all further search. The same ground was repeatedly hunted afterwards, but without success. This was near Santa Fé.

Colaptes, *Swains.*

41. C. collaris, *Vig*. Red-shafted Woodpecker.

Appeared in N. Mexico in September.

Geococcyx, *Wagl.*

42. G. viaticus, *Wagler*. Paisano.

I met with this bird, occasionally, throughout western Texas and New Mexico.

Ectopistes, *Swains.*

43. E. Carolinensis, *Linn*. Turtle Dove.

This species is the only one of the family that I met with on this expedition. It was very common in N. Mexico during the summer. On the Rio Grande further South, I found on a former occasion, between Matamoras and Camargo, five species, viz: Z. *Amabilis*, Z. *Leucoptera*, C. *Passerina*, E. *Carolinensis*, and C. *Solitaria*. Most of them seem to confine themselves to the warmer latitudes.

Ortyx, *Steph.*

44. O. Virginiana, *Linn*. Common Quail, or American Partridge.

Of four species of *Odontophorinæ* found in Western Texas, the *habitat* of each of which is confined to an almost distinct locality or region, this was the first met with on this occasion. It was extremely numerous about San Antonio; and thence, beyond the settlements to the San Pedro, or Devil's river, (a distance of 170 miles, westwardly, by the route travelled to the Rio Grande,) it was more or less common. This region, it is worthy of note, is by far the best on the whole route to El Paso; (a distance by the trail of 673 m.) That is to say, it is a better watered country, has a richer soil, and produces spontaneously a greater variety f grasses and other plants, whose seeds afford abundant and nutritious food to all inds of game. I discovered no difference in the appearance or habits of this ird, here, from those of the common quail of the Atlantic States.

CYRTONYX, *Gould.*

5. C. MASSENA, *Gould.* Massena Quail, or Partridge.

This species was not seen before crossing the San Pedro: but it was not long ntil it made its appearance in the waste and rocky region into which we then ntered. And from that time until we reached the Rio Pecos, a distance of 140 ., (westwardly by the route travelled,) it was frequently seen, though I should ot say it was very common. This region is a desert of great length from North South, our trail crossing it nearly at right angles. The general face of the ountry is level, and consists of either a crumbling argillaceous limestone, or a oarse grey sand, producing nothing but a sparse growth of sandplants. Water found only at long intervals; and except at these points there is but little cover r game, and apparently less food,—the principal growth being *Cacti*—of which he most common is *C. arborescens;* yet here, amongst projecting rocks, or on the orders of dry gullies, or in loose scrub, I found C. Massena in all the beauty of is rich and varied plumage.

The habits of this species are different from those of any other species of Partidge that I have met with. They were in covies of from 8 to 12, and appeared to e extremely simple, and affectionate in disposition. In feeding, they separated but ittle, keeping up a social *cluck* all the time. They were so gentle as to evince ittle or no alarm on the approach of man; scarcely moving out of his way as he assed; and only running off or flying a few yards when perhaps half their numers were laid low by a shot. This inclined me to think they might with little ifficulty be domesticated, although I found them, *here*, in a boundless barren aste, and *nowhere* near the habitation of man. This trait of gentleness is the ery opposite of those strikingly manifested by the *scaly partridge*, which I always bserved to be, though found perchance in grounds as little frequented as these, emarkably vigilant, shy, and difficult to approach. The call or signal note of his species is peculiar. I never saw them after crossing the Pecos river.

LOPHORTYX, *Bonap.*

16. L. GAMBELII, *Nutt.* Gambel's Quail, or Partridge.

After losing sight of the last species, I did not fall in with this until we reached the Limpia river, about 100 m. west of the Pecos. This beautiful bird, whose habits in some respects bear more resemblance to the common partridge, like that, seems to prefer a more genial and hospitable region. In this part of the country, the Mesquite tree (*A. glandulosa*) is more or less common; and the Mesquite grass, and other plants bearing nutritious seeds, are abundant. Here, this partridge increases rapidly in numbers, and becomes very fat. And, as I afterwards ascertained, is much disposed to seek the farms, if any be within reach, and to cultivate the acquaintance of man. About the rancho of Mr. White, near El Paso, I found them very numerous; and here in gangs of 50, or 100, they resort, morning and evening, to the barn-yard, and feed around the grain stacks in company with the poultry, where they receive their portion, as it is scattered among them by the hand of the owner.

I found them distributed through the country from the Limpia to the Rio

Grande, a range from east to west exceeding 100 m., and along the Rio Grande from Eagle Spring Pass to Don Ana, a distance of 120 m. North of this, I did not see them. I was not among them during the season of incubation.

CALLIPEPLA, *Wagler*.

47. C. SQUAMMATA, *Wagler*. Scaly Quail, or Partridge.

This species I have met with, at different times, throughout a more extended region than either of the last two, viz: from Camargo, on the lower Rio Grande, to Santa Fé. On the present occasion, they were more numerous between the latter point and Don Ana than elsewhere. They seem to prefer the vicinity of the greater water courses to interior tracts. They are much more wild than either of the preceding, and being extremely watchful and swift of foot, they elude pursuit with surprising skill, scarcely resorting to flight, even in comparatively open, sandy ground. They do not approach the settlements as much as the last. For the table, all these species, however, possess in a high degree the requisites of plump muscle and delicate flavour. Massena is perhaps the best.

TETRAO, *Linn*.

48. T. CUPIDO, (*L.*) *Wils*. Pinnated Grouse.

Were found in Texas, between Lavaca, Victoria, and Goliad.

49. T. OBSCURUS, *Bonap*. Dusky Grouse.

A few flocks were seen in the mountains from Santa Fé to Taos. In September they were feeding on the berries of the White Cedar.

[I should mention that the Wild Turkey (*M. G.*) was found on almost every stream margined with timber, throughout the whole of the country traversed. On the Nueces, Leona, and Turkey Creek, they were in great numbers.]

CHARADRIUS, *Linn*.

50. C. VOCIFERUS, *Linn*. Kildeer plover.

This bird I found occasionally on the whole route.

HIMANTOPUS, *Briss*.

51. H. NIGRICOLLIS, *Vieill*. Black-necked Stilt.

Occasional flocks were seen on the Rio Grande, as high up as San Elizario.

TRINGA, *Linn*.

52. T. HIMANTOPUS, *Bonap*. Long legged Sand piper.

I found a few birds of this species near San Elizario, in October. Their favorite range, however, does not extend far from the Gulf. On reference to my notes, I find they were abundant about Corpus Christi, from September to March, 1845-6; at the termination of which period I left them still there. They were exceedingly numerous about Matamoras, during the following winter, and were served at the tables of the Hotels and Restaurants very prodigally, as well as the *Chiac-chia-lacca*. The Sandpiper was at this season very fat, and was considered, by many, little inferior to the Snipe, (S. Wilsonii) for which it often passed.

[I might remark, in passing, that the *Chiac-chia-lacca*, as it is called by the Mexicans—a name doubtlessly derived from its peculiar cry, which strikingly resembles a repetition of those syllables—is also a capital bird for the table. It is the *Penelope Poliocephala* of *Wagler*; and since the extension of our domain to the Rio Grande, is now a bird of the United States. It is very numerous on the

, where the forests are made to echo with its shrill cry—not unlike
Guinea fowl. It is often domesticated by the Mexicans, and goes at
: the grounds.]

GRUS, *Linn.*

ERICANA, *Temm.* Whooping Crane.

hole route I met with but one pair of this large crane. This was at
Hondo, in Texas, above San Antonio, in the month of November. I
notes taken at Corpus Christi in 1845, that they were seen there occa-
pairs, or in parties of 3 or 4, but never in large flocks, nor in company
nadensis, although the latter were innumerable. Here, this bird was
bserved feeding at the water's edge; mostly on the river banks or
ds of fresh water, but also quite frequently on the sandy points that
ito the salt water of the Bay. Whereas, the Brown Crane frequented
low prairies at some distance from the Bay or River.

ADENSIS, *Temm.* Brown Crane.

ne I found on the Rio Grande from Santa Fé to El Paso, in October;
articularly between Albuquerque and Sorocco, where, for 50 miles,
peared to be covered with them. They filled the cornfields and alight-
the houses, never being disturbed by the gun.

SCOLOPAX, *Linn.*

SONII, *Temm.* Common Snipe.

d I found almost every where from the Gulf to Santa Fé, where a patch
and was encountered, but nowhere were they numerous. In 1845,
ested and raised their broods near Corpus Christi.

NUMENIUS, *Briss.*

REALIS, *Lath.* Esquimaux Curlew.

ere seen on the plains east of the Rio Grande.

NGIROSTRIS, *Wilson.* Long billed Curlew.

ere seen much more frequently than the last, and were common on the
: the Apache mountains.

CYGNOPSIS, Brandt.

ADENSIS, Brandt. Canada Goose.

: meet the Canada Goose until I reached the Rio Grande, which was at
miles below El Paso; thence I found them tolerably numerous until I
er near Santa Fé.

CHEN, *Boie.*

ERBOREA, Boie. Snow Goose.

cks of this Goose were found occasionally in company with the last.

BERNICLA, *Steph.*

ENTA, *Steph.* Brant or Brent Goose.

aly were seen on the Rio Grande.

ANSER, *Briss.*

YTHROPUS, *Linn.* White fronted Goose.

ose was more common than the last; they were, as I have generally found them elsewhere, less shy than those of any other species. They seek out little pools or mud puddles near the river, to which they resort to feed more habitually than their congeners; and here they are without difficulty approached and shot.

Cygnus, *Linn.*

62. C. buccinator, *Rich.* Trumpeter Swan.

In Texas, I at times saw flocks of this swan at great heights, and heard their wild, melancholy note, as they liesurely yet swiftly winged their way through the upper air.

Anas, *Linn.*

The following species I found every where that water was found, in the plains or among mountains, between San Antonio and the Rio Grande—a distance, as the crow flies, of over 400 miles. In the midst of extensive plains, I scarcely ever approached a "*water-hole*" (or rain water pond) in which I did not find small flocks of one or more species.

63. A. boschas, *Linn.* Mallard Duck.
64. A. strepera, *Linn.* Gadwell Duck.
65. A. Americana, *Gmel.* Widgeon or Baldpate.
66. A. Carolinensis, *Steph.* Green winged Teal.
67. A. discors, *Linn.* Blue winged Teal.
68. A. clypeata, *Linn.* Shoveller Duck.

The last, however, I saw only at San Elizario; where also, and generally along the Rio Grande and Rio Puerco, and their mountain branches, nearly to the foot of the *Sierra de los Mimbres*, I found most of the others—which shows their extensive range.

The Committee on Dr. Leidy's "Additional Contributions to Helminthology," reported in favor of publication in the Proceedings.

Helminthological Contributions.—No. 2.

By Joseph Leidy, M. D.

Aspidagaster, *Baer.*

Aspidagaster conchicola. *Baer,* Act. Acad. Nat. Cur., T. 13, p. 527; *Dujardin,* Hist. Nat. des Helm., p. 324; *Diesing,* Syst. Helm., Vol. 1, p. 414.

Body oval, posteriorly obtusely rounded; color yellowish white. Neck translucent, cylindric; mouth terminal, large, surrounded by a thick, contractile lip. Lateral margin of ventral disk crenate.

Measurements at rest.—Length ⅔ to 4-5ths of a line by ¼ to ⅓ of a line broad. Neck ¼ length of body, by 1-9th line in breadth. Œsophageal bulb longitudinally oval, 1-166th in. long by 1-285th in. broad. Ovum oval, 1-333d to 1-285th in. long, by 1-666th to 1-500th in. broad.

Measurements in action.—Length 1 to 1⅓ lines by 1-5th to ¼ line broad. Neck may elongate to one-half length of body, by 1-200th in breadth. Lip may expand into a circular disk, or be elongated into a triangular rostrum.

Hab.—Found in the pericardial cavity of Unio purpureus, U. nasutus, U. radiatus, U. cariosus and Anadonta marginata.

PLANARIA, *Müller*.

2. PLANARIA MACULATA. *Leidy*, Proc. Acad. Nat. Sci., Vol. 3, p. 251; *Diesing*, Syst. Helm., Vol. 1, p. 205.

Length from 2½ to 6 lines; breadth ½ to 1 line.

Hab.—Everywhere in ditches near Philadelphia. (Found in great abundance between the outer decaying petioles and inner living ones of the leaves of the Arum virginicum, growing in profusion in ditches below the city.)

3. PLANARIA TRUNCATA, *n. s.* Body sublinear; posteriorly obtusely rounded; anteriorly truncated, with the angles slightly prominent laterally. Blackish white, translucent at margin, with a blackish streak down the back. Eyes two, reniform, 1-400th in. long by 1-500th in. broad; 1-200th in. apart. Œsophagus simple, cylindrical, ¼ line long.

Length 3 to 5 lines; breadth ½ to ¾ of a line.

Hab.—Found in a running rivulet in the vicinity of Newark, Delaware.

4. PLANARIA (TYPHLOLEPTA ? *Oersted*,) FULIGINOSUS, *n. s.* Body oval, dilated; inferiorly flat; superiorly moderately convex, fuliginous. Eyes none: in their ordinary position a slightly greater accumulation of black pigment upon the upper surface. Mouth inferior, a little posterior to the centre; œsophagus simple, cylindrical, white, 1 line long by ½ line broad.

Length 5 lines, breadth 4 lines.

Hab.—Rancocas Creek, near Pemberton, New Jersey.

ANGUILLULA, *Oken*.

5. ANGUILLULA LONGA, *n. s.* Body cylindrical, translucent, colorless. Mouth round, buccal capsule inverted campanulate; œsophagus and intestine cylindrical, equal in diameter, the former 1-25th in. long.

Female, 2 to 3 lines long; anteriorly 1-333d in. broad; middle 1-285th in. Tail narrow, acute, 1-111th to 1-75th in. long from anus.

Male, 1½ to 2 lines long; posteriorly dilated, obtusely rounded, curved, with three slight tubercular thickenings of the integument ventrally; 1-285th in. broad: at middle 1-370th in. broad. Penis a curved spiculum, 1-280th in. long.

Hab.—Found in very great abundance, wriggling above the surface of soft mud, in stagnant ditches in the neighborhood of Philadelphia.

6. ANGUILLULA LONGICAUDA, *n. s.* ♀ Body cylindrical, colorless, hyaline; anteriorly obtusely rounded; posteriorly attenuated, with a long, delicate, flexible, subulate tail. Mouth without cirri; œsophagus cylindrical, often with the appearance of a globular bulb at its lower end; intestine cylindrical; anus indistinct. Generative apparatus ?

Length of largest 1-40th in.; breadth 1-1000th in.; length of tail 1-200th in. Smallest: length 1-160th in.; breadth 1-2000th in.; length of tail 1-800th in. In an individual 1-100th long, the œsophagus measured 1-570th in. long.

Hab.—Found with Lyngbya muralis and other confervæ about gutters and water spouts in the city of Philadelphia. This species is very active in its movements, and appears to have the power of fixing itself by the end of the tail to surrounding objects.

7. ANGUILLULA FOSSULARIS. ♀ Body cylindrical, anteriorly narrowed, truncated. Mouth round, surrounded by a prominent circular lip; buccal apparatus none; pharynx short; œsophagus long, clavate, or fusiform, slightly tortuous; intestine cylindrical, brown in color; rectum distinct, cylindrical, colorless. Tail acute. Ovary double. Generative aperture anterior to the middle.

Length 2 to 2½ lines; breadth 1-250th in. Tail 1-60th in. long from anus. Œsophagus 1-28th in. long; 1-1333d in. broad at commencement; 1-400th in. at termination. Intestine 1-475th in. broad. Rectum 1-75th in. long.

Hab.—Stagnant ponds and rain-puddles in the suburbs of Philadelphia.

ACESTUS, *Leidy*.

Body vermiform. Podal spines in 4 rows; anteriorly 3 to 5 in each fasciculus, posteriorly in pairs; long sigmoid, bifurcated at extremity. Upper lip conoidal, inarticulate. Annuli under 100. Blood red. Eyes, girdle and muscular stomach none.

8. ACESTUS SPIRALIS, *n. s.* Body cylindrical, posteriorly attenuated, obtusely terminated; color reddish; integument thick. Annuli 80; anterior five with 5 podal spines in each fasciculus, afterwards 3 in each, and posteriorly in pairs; furnished with a shoulder, and a bifurcate unguiform extremity. Œsophagus passing the sixth annulus. Intestine simple, cylindrical, capacious. Blood vessels large, tortuous, without distinct cœca, filled with red blood.

Length 1 inch; breadth anteriorly 1-12th line; at middle 1-10th line; posteriorly 1-16th line. Lip 1-280th in. long from mouth. Podal spines 1-400th in. long.

Hab.—In the soft mud at the bottom of stagnant ditches and ponds in the neighborhood of Philadelphia.

Remark.—When drawn out of its concealment in the mud, it rolls the posterior ¾ of the body into a spiral.

9. ACESTUS HYALINUS, *n. s.* Body cylindrical, posteriorly obtuse, hyaline. Annuli 24 to 34. Podal spines anteriorly 3 to 4 in each fasciculus, posteriorly in pairs, swollen slightly one-third their length from the extremity, which is unguiform and bifurcated. Blood faintly red.

Length 1½ to 3 lines; breadth anteriorly 1-333d in.; middle 1-280th in.; posteriorly 1-400th in. Lip 1-500th in. long. Podal spines 1-550th in. long.

Hab.—Found with the preceding, its anterior half buried in the mud and the tail rapidly vibrating like Sænuris or Strephuris.

DERO, *Oken*.

Body vermiform. Podal spines in two rows. Lateral setæ. Caudal appendages. Blood reddish. Proboscis and eyes none.

10. DERO LIMOSA, *n. s.* Body cylindroid, faintly reddish, translucent. 8, 16, 26 to 34 setigerous annulations when the body is in from 1 to 4 divisions. Five anterior annuli without setæ. Two rows of podal spines; 5 to 6 in each fasciculus anteriorly; 3 to 4 posteriorly; long sigmoid, bifurcate at extremity. Setæ single, in one row upon each side. Caudal annulation, expanded, truncated,

furnished upon each side of the anal aperture with four unequal, compressed, oval, curved, contractile, vibrillated appendages. Upper lip triangular. Œsophagus passing to sixth annulation.

Length 2 to 6 lines; breadth anteriorly 1-10th line; middle 1-8th line; caudal annulation expanded 1-5th line. Lip 1-250th in. long. Setæ 1-666th in. to 1-133d in. long.

Hab.—Living in tubes of mud or decayed vegetable particles, upon the bottom of stagnant ponds and ditches, in the neighborhood of Philadelphia.

It is usually observed with the posterior half or two-thirds of its body projecting nearly vertically from its tube, with the caudal, contractile appendages expanded. Upon any disturbance it rapidly retreats within its tube. A sessile species of vorticella is frequently found attached to the posterior part of the body.

At first sight there appears to be only three appendages each side of the anus, but closer examination proves the existence of a fourth, small and not so distinct.

Dr. Leidy, on behalf of the Curators, stated that he desired to correct an error which he had noticed in a report of some remarks by Mr. Squier at a meeting of the American Ethnographical Society, in which Mr. S. stated that Dr. Morton's collection of Crania had been presented to the Academy. Dr. Leidy had ascertained from Dr. Morton's Executors, that the collection had not been presented to this Institution.

ELECTION OF MEMBERS.

Caspar Wistar, M. D., and Mr. Charles E. Smith, of Philadelphia, were elected *Members* of the Academy.

DONATIONS TO MUSEUM

In May and June, 1851.

May 6th.

Teeth of fossil Charcharodon and Squalidæ, and vertebra of a fish, from the green sand, Pemberton, N. Jersey; Mastodon tooth, from Rancocas Creek, N. J. Presented by Dr. C. H. Budd.

Fossil wood, from California. Presented by Mr. Ashmead.

Four specimens of Axolotl, from sources of Santa Fé Creek, 9047 feet above the level of the sea. From Col. J. J. Abert and Mr. R. H. Kern.

Feldspar, Pyroxine and Feldspar, Nuttalite, and Sphene, from Diana, Lewis Co. N. Y. Presented by Mr. Wm. S. Vaux.

[The following Crania were deposited by Dr. Morton April 1st, 1851, but omitted accidentally under the proper head at that date, viz.:

An ancient Egyptian, from Memphis, part of the Mummy unwrapped by Mr. Gliddon in January last, and presented by that gentleman to Dr. Morton; two skulls of ancient Tapajös Indians of Brazil, from a cemetery of that people on the head waters of Tapajös River; from Amory Edwards, Esq., of New York. Skull of Marquesas Islander, procured by Lieut. Steele, U. S. N., presented by Dr. Bush, Wilmington, Del. Skull of a girl 13 years old, of the Guaycuru tribe of Indians, Brazil, obtained at Buenos Ayres, and presented by Dr. Kennedy.]

May 13th.

Centipede, from Texas, and Vermetus, from Cienfuegos. Presented by Dr. B. H. Rand.

Homarus Americanus. From Dr. J. C. Fisher.

May 20th.

Fine impression of a Bird's foot in Red Sandstone, from the Portland quarries, Conn. Presented by Dr. J. C. Fisher.

Fossil wood, from the Drift, Pemberton, N. J. From Dr. Charles T. Budd.

June 3d.

Vespertilio ———, from California. Presented by Mr. Wm. Hutton.

Numerous specimens of Cicada Septendecim in various stages of development; portions of galleries of the larvæ of the same insect; from the vicinity of Philadelphia. From Mr. Samuel Powel.

Fungia. Presented by Dr. Joseph Ard.

Sixty-three specimens of rocks from the vicinity of Reading, Pa. From Dr. J. P. Heister.

The following were presented by Col. Geo. A. McCall, U. S. A.;—

Skins of Lanius ludovicianus, Apache Mountains; Carpodacus frontalis, male, female, young, nest and eggs, Santa Fé; Carpodacus obscuris; Chondestes grammacea, Otocoris ———, Pipilo arcticus, Santa Fé; and a young bird of a supposed new species, from Santa Fé.

June 10th.

Molar of Mastodon, found near Reading, Pa., and presented by Dr. J. P. Heister.

Specimens of Emys picta, E. guttata, and E. insculpta. From the same.

Cebus hypoleucus. From Mr. J. D. Sergeant.

Primitive Carbonate of Lime with Graphite, from Kimberton, Pa. From Mr. Isaac Lea.

June 17th.

Twenty-two species of marine Algæ. Presented by Mr. John Hooper, of Brooklyn, L. I.

Laminated Peroxide of Iron, from the red sandstone of Connecticut. From Dr. R. Bridges and S. Powel.

A Microscope by Oberhaueser. Deposited by Dr. J. K. Mitchell, on the usual condition.

DONATIONS TO LIBRARY

IN MAY AND JUNE, 1851.

May 6th.

Human Physiology. By Robley Dunglison, M. D. 7th ed. 2 vols. 8vo. From the Author.

Novorum Actorum Acad. Cæsar. Leopold-Carolinæ Nat. Curiosorum, Vol. 22, pars altera. 4to. From the Academy.

American Journal of Science and Arts, May, 1851. From the Editors.

A proposal to establish and maintain one uniform system of Weights, Measures and Coins. By P. A. Browne. From the Author.

Archiv für Naturgeschichte. Herausg. von Dr. F. H. Troschel. Nos. 2, 3. 1850. From Dr. Wilson.

The London Athenæum for March, 1851. From the same.

The following were presented by Mr. Edward Wilson on the usual condition:—

Des Races Humaines. Par P. P. Bosc. 4to.

Nuove osservazione intorno alle Cocciniglie ed ai Loro Pretesi Maschi. Del Dott. F. G. Costa.

J. F. Blumenbachii decas collectionis suæ Craniorum diversarum gentium illustrata. 4to.

Dissert. med. inaug. de Tænia. Auctore G. Andreæ.

Dissert. physico-med. inaug. de Vermibus intestinalibus hominum. Auctore G. Van Doeveren.

Mittheilungen aus den Verhandlungen des Gesell. naturforsch. Freunde zu Berlin 1836, '37, '38.

Bericht über die Verhandlungen der Naturforsch. Gesell. in Basel 1835, '36, '38.

Mittheilungen der Naturforsch. Gesell. in Bern 1843, '44, '45, '46, '47.

De l'education des Vers à soie, d'apres la methode du Comte Dandolo. Par M. Bonafous.

Description des Oursins fossiles du Department de l'Isere. Par M. Albin Gras.

Principes fondamentaux de Semeiologie. Par C. F. Rafinesque-Schmaltz.

Catalogus de livres comprenant la Bibliotheque de feu Mr. A. Goldfuss.

Synopsis of the contents of the British Museum. 57th ed. 12mo.

Cuvier. Histoire de ses travaux. Par P. Flourens. 2d ed. 12mo.

Observationes quædam Helminthologicæ. Auctore J. H. Eber.

Entwicklung des Hummereies von dem ersten Veränderungen im Dotter an bis zur Reife des Embryo. Von Dr. M. P. Erdl.

Useful Knowledge: or a familiar account of the various productions of Nature. By Rev. W. Bingley. 3 vols. 8vo. 4th ed.

Memoire sur les Polypiers de mer Par J. E. Roques de Maumont. 8vo.

Recherches interessantes sur l'origin de la formation, &c., de Vers a Tuyau qui infestant des Vaisseaux. Par P. Massuet, M. D. 12mo.

Traité d'Insectologie. Par M. Charles Bonnet. 2 vols. 12mo.

Catalogue synonymique des Coleopteres d'Europe et d'Algerie. Par J. Gaubel. 8vo.

Du Tænia, ou ver solitaire, &c. &c. Par M. Mérat. 8vo.

les Mammiferes bimanes et quadrumanes suivi d'un memoire sur les
s. Par M. R-P. Lesson. 8vo.
atique du Microscope. Par le Dr. L. Maudl. 8vo.
eneration des Vers dans le corps de l'homme. 3me. ed. Par M.
vols. 8vo.
ür die Liebhaber des Steinruchs und der Konchyliologie. Von J. S.
6 vols. 8vo.
teratur und Beytrage zur kenntniss der Naturgeschichte, vorzuglich
lien und Fossilien. Von J. S. Schrœter. 4 vols. 8vo.
der Basler Naturforschenden Gesellschaft.
sches Museum. Herausgeg. von F. B. und E. H. Gronig. 2 vols. 8vo.
zu der Conchylien im Fürstlichen Cabinette zu Rudolstadt (C. L.
.) 8vo.
nologies of the Human Skeleton. By Holmes Coote. 8vo.
les Coléoptéres triméres securipalpes. Par M. E. Mulsant. Parts

drolithen, in Beziehung auf ihren innern Bau. Von B. Cotta. 4to.
med. inaug. de Hirudinis historia naturali et usu medico. Auctore
an Calcar. 4to.
ion de quelques poissons fossiles du Mont Liban. Par F. J. Pictet. 4to.
synoptique des Lépidoptéres d'Europe. Par MM. de Villiers et
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ur les Scincoides. Par J. T. Cocteau.
n de Mammiferes du Museum d'histoire naturelle. Par Huet fils et
jeune. 4to.
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en Thiere. 4to.
memoires sur divers objets d'histoire naturelle. Par MM. Lamarck,
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nn Dezallier von Argenville Conchyliologie. Folio.
n terrestrium et fluviatilium seu animalium infusoriorum, helminthico-
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naturelle des plus rares curiositez de la Mer des Indes. Folio.
Richterianum continens fossilia, animalia, vegetabilia Mar. Folio.

May 13th.

ngs of the Boston Natural History Society. Vol. 3, pp. 337—396.
Society.
tory delivered at the Middlesex Hospital at the opening of the Session
. By S. J. Goodfellow, M. D. From the Author.
don Philosophical Journal. Vol. 1. Nos. 1—5. From the Editors.
y Journal of the Geological Society of London. No. 25. From the

Gleanings from the Menagerie and Aviary at Knowsley Hall. Vol. 2. Folio. From the Editor, John Edward Gray.

Dr. Wilson presented the following on the usual conditions:—

Journal of the Franklin Institute for May, 1851.

Journal de Conchyliologie. An. 1850. No. 4.

Phycologia Britannica. By W. H. Harvey, M. D. No. 56.

History of British Mollusca and their Shells. By Prof. Forbes and S. Hanley. No. 36.

Annals and Magazine of Natural History. Vol. 7, new series. No. 39.

Conchologia Iconica. By Lovell Reeve. Part 95.

Illustrations of British Mycology. By Mrs. T. J. Hussey. 2d series, pt. 3.

The Genera of Diurnal Lepidoptera. By E. Doubleday: continued by J. O. Westwood. Part 41.

Philosophical Transactions of the Royal Society of London, Part 2. 1850. 4to.

Fauna Japonica. Aves No. 12; Pisces No. 16; Crustacea Nos. 6 and 7.

Journal of the Asiatic Society of Bengal. Vols. 1—5, and No. 79.

Actes de la Société Linnéene de Bordeaux. Tomes 5—15, et livs. 1—5, tome 16.

Voyage en Abyssinie: par une Commission Scientifique. Atlas, livs. 32; texte, Zoologie, Vol. 6. 8vo.

Voyage en Abyssinie. Par MM. Ferrett et Galinier. Planches livs. 17—20; texte, tome 2, pp. 401—540, tome 3, pp. 145—536.

Avium systema naturale.

Zoologia Danica. Auctore O. F. Müller. Vol. 4.

Testacea Utriusque Siciliæ, &c. &c. A J. X. Poli. Vol. 3. Folio.

Voyage en Crimee au Caucase, en Armenie, &c. Par Frederick Dubois. Atlas folio.

Proceedings of the Boston Society of Natural History. Vol. 3, pp. 337—396.

May 20*th*.

The London Athenæum for April, 1851. From Dr. Wilson.

The Charleston Medical and Surgical Journal, May, 1851. From the Editors.

Elements of Latin pronunciation for the use of Students in Languages, Law, &c. &c. By S. S. Haldeman. 8vo. From the Author.

June 3*d*.

Proceedings of the American Association for the Advancement of Science. Fourth meeting, Aug., 1850. 8vo. From the Association.

Monography of the family Unionidæ of North America. By T. A. Conrad. No. 12. From Mrs. L. W. Say.

Rural Sports. By the Rev. W. B. Daniel. 3 vols. 8vo. Supplement to the same. 1 vol. 8vo. From Mr. George Ord.

Annales de la Société Nationale d'Agriculture, &c., de Lyon. 2e. serie, tomes 1 et 2. 8vo. From the Society.

Uranus. Synchronistisch geordnete Ephemeride aller Himmelserscheinungen des Jahres 1850, 2, 3, 4 Quartate, und des Jahres 1851, erstes semestre. Herausgeg. von der k. Univ. Sternwarte zu Breslau durch deren Director Dr. Boguslawski. From the Director.

June 10*th*.

Contributions to Conchology. By C. B. Adams. No. 9. From the Author.

Catalogue of the Land Shells which inhabit Jamaica. By C. B. Adams. From the Author.

Historical and Statistical information respecting the history, condition and prospects of the Indian Tribes of the United States. By H. S. Schoolcraft, LL. D. Part 1. 4to. From the United States Bureau of Indian Affairs.

The following were presented by Mr. Edward Wilson on the usual condition :—

Elementi di fisiologia e notomia comparativa di Guiseppi Jacopi. 3 vols. 8vo.

L'Homme. Essai Zoologique sur le genre humain. 3e. ed. Par Bory de St. Vincent. 2 vols. 12mo.

Essay on Instinct and its physical and moral relations. By Thomas Hancock, M. D. 8vo.

Handbuch der Entwickelungs geschichte des Menschen mit vergleichender Rucksicht der Entwickelung der Säugethiere und Vögel. Von Dr. G. Valentin. 8vo.

Gleanings in Natural History. By Edward Jesse, Esq. 3d edition. 8vo.

Game Birds and Wild Fowl; their friends and foes. By A. E. Knox. 8vo.

G. B. Schmeidlein's Einleitung in die nahere Kenntniss der Insektenlehre nach dem Linneischen system. 8vo.

A history of the British Fresh-water Algæ. By Arthur Hill Hassall. 2 vols. 8vo.

The Cabinet; or a Natural History of Quadrupeds, Birds, Fishes and Insects. 2 vols. 8vo.

Orthoptera Suecica. Disposita et descripta a J. W. Zetterstedt. 8vo.

Dei Fortpflanzung der Vögel, von F. Berge. Nos. 1—12.

The British Museum, historical and descriptive. 8vo.

Nomenclature of Coleopterous Insects in the collection of the British Museum. Parts 1—4; list of Hymenopterous do. in do. Parts 1 and 2.

Bijdragen tot de Natuurkundige Wetenschappen verzamed door H. C. Van Hall, W. Vrolik in G. J. Mulder. 7 vols. 8vo.

A system of Geography, popular and scientific. By James Bell. 6 vols. 8vo.

A treatise on a section of Strata from Newcastle-upon-Tyne to the Mountains of Cross Fell in Cumberland. By W. Forster. 2d edition.

C. N. Langii Historia lapidum figuratorum Helvetiæ ejusque viciniæ. 4to.

Livre de Poste pour l'an 1845. 2e. tirage. 8vo.

Memoire sur les Iles Ponces, &c. Par M. Deodat de Dolomieu. 8vo.

General view of the Agriculture and Minerals of Derbyshire. By John Farey, Sr. 3 vols. 8vo.

The Gem of the Peak: or Matlock Bath and its vicinity, &c. By W. Adam. 8vo.

Historia Rivallensis. By the Rev. Wm. Eastwood. 8vo.

A general treatise on Cattle; the Ox, the Sheep and the Swine. By John Lawrence. 2d ed. 8vo.

The Orchard and Fruit Garden. By Charles McIntosh. 8vo.

The Flower Garden. By C. McIntosh. 8vo.

The Green House, Hot House and Stove. By C. McIntosh. 8vo.

Paseo por el Gabinete de Historia natural de Madrid. Par Don Juan Mieg. 8vo.

June 19th.

Fourth Annual Report of the Regents of the University of New York on the condition of the State Cabinet of Natural History. Jan. 11, 1851.

Sixty-fourth Annual Report of the Regents of the University of the State of New York. March 1, 1851.

The following were presented by Mr. Edward Wilson on the usual condition :—

Buffon's Natural History of the Globe and of Man; corrected and enlarged by John Wright. 4 vols. 12mo.

On the Economy of Machinery and Manufactures. By Charles Babbage, Esq. 3d ed. 12mo.

Johannis Lathami Systema Ornithologiæ sive index ornithologicus: editio nova ab E. Johanneau. 12mo.

The Steam-Engine familiarly explained and illustrated. By the Rev. Dionysius Lardner, LL. D. 5th ed. 8vo.

Journal of an Excursion to Antwerp during the siege of the citadel in Dec., 1832. By Capt. the Hon. C. S. W. 8vo.

A Commercial Dictionary of the names of the Coins, Weights and Measures in the world. By Joseph Palethorpe. 8vo.

The Animal World Displayed. By Frederick Watson. 8vo.

An Essay towards a natural history of the Herring. By Jas. S. Dodd. 8vo.

A new system of Geology. By William Cockburn, D. D. 8vo.

Memoires pour servir á l'hist. nat. et principalement á l'oryctographie de l'Italie et des pays adjacens. Par Albert Fortis. 2 vols. in one. 8vo.

Westminster Review. No. 69.

Nuove Recherche Zootomische sopra alcune specie di Conchiglie bivalvi del Cit. G. Mangili. 8vo.

Doutes ou observations de Mr. Klein. Traduit du Latin. 8vo.

Die lebenden Schnecken und Muscheln der umgegend Berlins beschrieben von J. P. E. Fr. Stein.

Recherches sur l'origine des peuples du Nord et de l'Occident de l'Europe. Par M. Darttey.

Proceedings of the Royal Society, No. 75, and index and title to Vol. 3.

Transactions of the Tyneside Naturalists' Field Club. Vol. 1. No. 5. 1850.

Sketch of the relation which exists between the three Kingdoms of Nature. By T. Williams.

Analysis of the Anthracite Coal from Bonville's Court Collieries, Pembrokeshire. By E. Frankland, Ph. D.

Insecta Saundersiana. Diptera part 1. By Francis Walker, Esq.

Description of a new species of Mole. (Talpa leucura, Blythe.) By E. Blythe, Esq.

Musæum Septilianum. Pauli Mariæ Terzagi descriptum. 4to.

Statistics of the British Empire. By James McQueen, Esq. 8vo.

Storia naturale della Sicilia. Dell Ab. Francesco Ferrara. 4to.

A history of British Birds. By the Rev. F. O. Morris. Nos. 1—11. 8vo.

A history of the Fishes of Madeira. By Richard T. Lowe. Nos. 1—4. 8vo.

Transactions of the Microscopical Society of London. Vol. 2, and part 1, Vol. 3.

The Edinburgh Philosophical Journal, conducted by Dr. Brewster and Prof. Jamieson. Vols. 1—14. 8vo.

Traité de Geognosie de M. D'Aubuisson de Voisins. Par Amedée Burat. 3 vols. 8vo.

De la Houille. Par M. A. Burat. 8vo.

Memoires pour servir à l'histoire naturelle des Abeilles solitaires qui composent le genre Hariete. Par C. A. Walokenaer. 8vo.

Catalogue of the contents of Stowe House. 4to.

Di Corpi Marini che su, Monti si trovano: Let. critiche di Antonio Vallisneri. 4to.

Reisen in Britisch-Guiana in den Jahren 1840—1844. Von Richard Schombourgk. 3 vols. 8vo.

July 1st, 1851.

Vice-President Bridges in the Chair.

A letter was read from Thos. E. Yeateman, Esq., addressed to Geo. W. Carpenter, dated St. Louis, June 16, 1851, in reference to a portrait of the late Dr. Gerard Troost, which he was about transmitting to the Academy, as a donation from himself.

Also, a letter from Mr. William Haidinger, dated Vienna, 6th June, 1851, acknowledging the receipt of his notice of election as a Correspondent, and advising of the shipment of a present of books to the Academy from himself and M. Hauer, and also the Year-book, sent by the Royal Imperial Geological Institution of the Austrian Empire.

Dr. Leidy stated that the Cicada septendecim, was subject to a fungous disease. The posterior part of the abdomen he observed in several instances to be filled with a mass of oval spore-like bodies, embossed upon their surface, but becoming smooth from endosmosis when placed in water.

He also stated he had just received the dead larva of a lamellicorn insect, which was filled with the same fungus which sometimes attacks the mole cricket.

July 8th.

Vice-President Bridges in the Chair.

Letters were read from the Linnean Society of London, dated Nov. 7, 1850, and from Dr. F. H. Troschel, dated Bonn, 23d Jan., 1851, severally acknowledging the receipt of Nos. of the Proceedings of the Academy.

July 15th.

Vice-President Bridges in the Chair.

Mr. Vaux presented a paper, entitled " Descriptions of seventeen new species of Crinoidea, from the Subcarboniferous Limestone of Iowa and Illinois; by D. D. Owen, M. D., and B. F. Shumard, M.D., with a plate ;" which, being intended for publication in the Journal, was referred to a committee, consisting of Dr. Leidy, Mr. I. Lea, and Dr. Ruschenberger.

A communication was read from the Imperial Society of Naturalists of Moscow, advising of the transmission of recent Nos. of the Bulletin of that Society.

July 29th.

Vice President Bridges in the Chair.

The Committee to which was referred the paper of Drs. D. D. Owen and B. F. Shumard, describing new species of Crinoidea from Iowa and Illinois, reported in favor of publication in the Journal.

On motion of Mr. Cassin, the privilege of endorsing tickets of admission to the Museum of the Academy, on Tuesdays and Fridays, and of issuing orders for the same purpose, was conferred on Mrs.

Mary E. Griffith, widow of Dr. R. E. Griffith, late Vice-President of the Academy; Mrs. Charlotte H. Townsend, widow of Dr. J. K. Townsend; Mrs. Catharine M. Gambel, widow of Dr. Wm. Gambel; and Mrs. Rebecca P. Morton, widow of Dr. Samuel George Morton, late President of the Academy; and the same were also privileged and invited to visit, at all times, the Museum and Library.

ELECTION.

M. Ambrose Tardieu, Prof. agregé a la faculte de Médecine de Paris, was elected a *Correspondent;* and Mr. Francis Lennig, of Philadelphia, was elected a *Member* of the Institution.

August 5*th.*

Vice President BRIDGES in the Chair.

Communications were read—

From the Librarian of the Smithsonian Institute, dated July 9th, 1851, addressed to the Librarian of the Academy, transmitting a copy of "Notices of public Libraries in the United States," published by the Institute.

From the Librarian of the British Museum, dated 18th July, 1851, acknowledging the receipt of late Nos. of the Proceedings.

From Dr. Joseph Hyrtl, dated Vienna, July 13th, 1851, acknowledging the receipt of his notice of election as a Corresponding Member.

Mr. Cassin asked attention of the members to the specimens of owls on the table.

These specimens comprise parent male and female, and three young birds, fully grown, which were reared in the woods at Powelton, the residence of John Hare Powel, Esq., at whose hospitable mansion the members of this Academy have been always made welcome.

The adult male exhibits the plumage of the mottled owl, or *Ephialtes nævia,* (*Gm.*), the adult female that of the red owl, or *E. asio,* (*Gm.*), and the young birds, sufficiently feathered to be able to fly readily, and which were ascertained, by dissection, to be two males and one female, are assuming the red plumage of their parent female, but having evidently been previously of a grayish white color, the entire plumage of the head and body above and below, with every feather marked with transverse lines of dark reddish gray, very distinct, and not seen in either of the adults.

The present specimens must, of course, be regarded as fully demonstrating the identity of the red and the mottled owl, and the only point now to be determined is, whether the female ever becomes mottled. This, however, Mr. C. regarded as very probably the case, as it is well established that rapacious birds of several species breed before they assume mature plumage.

Mr. Phillips made some remarks on a brilliant meteor, which he had observed in this city on the evening of the 3d inst., taking a direcion apparently from West to East. The meteor was remarkable for ts bright green color.

August 12*th*.

Vice-President Wetherill in the Chair.

Dr. Leidy read a paper, entitled "Contributions to Helminthology, No. 3," which was referred to Drs. Bridges, Watson, and Hallowell.

Dr. Fisher, in adverting to a suggestion made at a late meeting of the Academy, that it was probable that many of the insects which are destructive to various trees of this country, were periodical in their recurrence, resembling, in this respect, the Cicada septendecim, remarked that six or seven years since the black caterpiller, or canker worm, had been very destructive to the Elm trees at New Haven, but that since then they were comparatively rare. On a visit to New Haven this summer he found them again very numerous, and doing great injury.

August 19*th*.

Vice President Bridges in the Chair.

Dr. Leidy presented a paper entitled "Conspectus Crustaceorum quæ in Orbis Terrarum circumnavigatione Carolo Wilkes e Classe Reipublicæ Fœderatæ duce lexit et descripsit J. D. Dana;" which, on motion was referred to the following Committee, Dr. Leidy, Dr. Bridges, and Dr. J. C. Fisher.

A letter was read from the "Akademie der Wissenschaften zu Wien," dated April 30th, 1851, in reference to the publications of that institution, announced this evening.

Dr. Fisher read a paper describing a new species of Cicada, named by him *C. Cassinii*, which being intended for publication in the Proceedings, was referred to Dr. Ruschenberger, Mr. C. E. Smith, and Dr. Zantzinger.

Mr. Cassin read a paper intended for publication in the Proceedings, "Notes on the Cicada Cassinii, and on C. septendecim. Referred to the above Committee.

Mr. Cassin read a paper entitled "Descriptions of Laniadæ," intended for publication in the Proceedings. Referred to Col. G. A. McCall, Mr. Harris, and Dr. Watson.

Dr. Leidy called the attention of the members, to several fragments of fossil ruminant ungulates, from Nebraska Territory.

One of these is the greater portion of a cranium, which, in its perfect condition, had been about 7 inches in length. For the examination of this he expressed his indebtedness to Dr. Hiram A. Prout, of St. Louis, who first pointed out the remains of a gigantic species of Palæotherium, from the same region in which the present fossil was obtained.

The teeth in the specimen are in a very much mutilated condition, but with the aid of several fragments of upper maxillæ containing perfect teeth, from several other individuals of the same animal, received from the Smithsonian Institution, through Prof. Baird, the dentition in a great measure can be made out.

The teeth form nearly a continuous row, as in Anoplotherium, the only interval, being one of ½ of an inch between the canine and the first premolar.

The canine is broken away, but judging from the fragment of the root, which is 4 lines in diameter antero-posteriorly, it was well developed. The anterior 3 premolars are too much broken to obtain any knowledge of their form. The fourth is like one-half of the true molars, and resembles closely, the corresponding tooth of Cervus.

The 3 true molars have exactly the same form, and very nearly the size as the 2 posterior superior molars, described in the Proceedings of this Academy, Vol. iv. p. 47, as characterizing a genus under the name of Merycoidodon. From the latter fact it might be readily supposed, that the fossil before us belonged to Merycoidodon, but a fragment of a face of a smaller animal now exhibited, received from Prof. Baird, contains the first and second true molars, mutilated, which have the same form as the corresponding teeth of the preceding fossil, but the fourth premolar has three cusps instead of two, like the former, indicating that we may have animals of different genera, with true molars identical in form.

Neither of these fossils Dr. L. suspected belonged to Merycoidodon, for in it the enamel of the teeth is rougher than in the former.

For the first he proposed the name of Oreodon.

The face of Oreodon has a remarkably cat-like expression, being depressed, and as broad between the malar bones, as it is long. The orbits are closed posteriorly as in the ruminants, by the junction of the post-orbital process of the os frontis with that of the malar bone, and present outward, forward, and upward, less in the latter two directions than in the cats, but more so than in the ruminants.

Just anterior to the orbit, is a remarkably large lachrymal depression or *larmier*, relatively several times larger than that of Cervus virginianus.

The glenoid cavity is a broad, extensive, nearly flat surface, as in the ruminants.

The posterior portion of the head, relative to the face, is very narrow, and resembles in its form the fragment of a cranium described in Vol. v., of the Proceedings, p. 90, as characteristic of a genus under the name of Eucrotaphus.

The temporal fossæ are as large as in the carnivora, and lead to the impression, with other characters given of the head, that flesh probably formed part of the food of the animal.

The species Dr. L. named Oreodon priscum.

Measurements.

Length of line of 3 true molars, ...	19½	lines
" " 4 premolars, ...	20	"
Breadth of middle true molar, ...	8½	"
Diameter of orbit, ...	13	"
Breadth of face between malar bones, below the orbits, .	48	"
Length from same point to root of canine tooth, . .	43	"
Breadth of cranium just anterior to the meat. aud. ext., .	26	"

Several fragments were then exhibited of a much smaller animal than the last, consisting of the greater part of the inferior and superior maxillæ, the latter containing the 4th premolar and the true molars perfect, having the same form as those of Oreodon priscum. To this species, the name of Oreodon gracile was given.

The posterior two inferior molars have the same form as the corresponding ones of Merycoidodon.

Measurements of O. gracile.

Line of inferior molars to root of canine, . . .	25½ lines.
Greatest breadth of inferior maxilla, below the posterior molar tooth, ...	16½ "
Line of superior molars, ...	26 "
" " true molars, ...	14 "
Greatest breadth of the middle superior true molar, .	5½ "

The fragment of a face before alluded to having the same form of the superior true molars as Oreodon, but differing from it in having 3 cusps to the fourth premolar, belonged to an animal very closely allied to the latter genus. It possesses the remarkably large lachrymal depression, which in this fossil appears to have been more hemispherical than in Oreodon. The depression being of such a striking character in Oreodon and in this genus, the name Cotylops was proposed for the latter. The only entire tooth preserved in the fragment of Cotylops is the third premolar, the crown of which is antero-posteriorly oblong, constricted in the middle so as to give in outline the form of 8. It has a single cusp, and presents an oval fossa about two lines long, postero-internally; and a heel or short tubercle antero-internally.

The species was named Cotylops speciosa.

Measurements.

Length of line of 1st and 2d superior true molars, . .	10 lines.
" " 2d, 3d, and 4th premolars, . . .	13 "
Antero-posterior diameter of 3rd premolar, . . .	4½ "
Greatest breadth of " "	2½ "
Diameter of lachrymal depression, ...	6¾ "
Depth " " "	2½ "

The fragment of cranium for which was proposed the name Eucrotaphus,* from its great resemblance to that of Oreodon, and its proportions, with the close alliance of Oreodon to Merycoidodon, Dr. L. suspected belonged to the latter genus.

August 26th.

Vice-President Wetherill in the Chair.

The Committee on the following, by Dr. Leidy, reported in favor of its publication.

Helminthological Contributions.—No. 3.

By Joseph Leidy, M. D.

Gen. Nov. SYNPLECTA.†

Body nematoid, cylindroid, distinctly and coarsely annulated. Head composed of two trilobed portions, between which is the mouth. Œsophagus long, simple.

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*Proc. Acad. Nat. Sci., Vol. v. p. 90.

† συν together; πλεκω I twine.

Intestine narrow, simple. *Male*, attenuated at the extremities; posteriorly rolled into a spiral, and furnished ventrally with numerous tegumentary tubercles. Penis short, corneous, composed of two lateral portions. *Female* anteriorly attenuated; posteriorly terminating in a strong, thick, muscular acetabulum, with a posterior conoidal depression containing a single strong, recurved hook. Anus and generative apertures close together, just anterior to the muscular acetabulum. Ovum elliptical, elongated at the poles.

The female of this curious genus of nematoid entozoa attaches herself, by means of the posterior hook, to the mucous membrane of the intestinal canal of the animal it infests, while the male clings to the female by winding the posterior part of its body spirally around the posterior part of the latter, retaining itself in that position through the aid of the numerous tubercles upon its ventral surface, which closely apply themselves to the part of contact in the female.

1. SYNPLECTA PENDULA, *n. s.*

Body faintly reddish-white, cylindroid. Annulations with from 12 to 18 transverse muscular striæ. Lobes of the head nearly equal. Œsophagus very long, cylindroid, slightly dilated inferiorly. Intestine narrow, cylindrical.

Male. Length 4 to 5 lines; breadth 1-6th of a line. Posterior fourth of body forming three turns of a spiral, furnished ventrally with about 20 longitudinal rows of tegumentary tubercles, or small quadrilateral plates 1-1600th in. long, by 1-2666th in. broad, extending as far back as the anus. Tail curved, conoidal, 1-60th in. long from the anus, furnished ventrally with 7 or 8 pairs of minute conical tubercles. Œsophagus 1-5th line long, 1-333d in. broad; intestine 1-400th in. broad. Penis 1-200th in. long, conoidal, obtuse, bent at free extremity, composed of two lateral halves.

Female. 6 to 11 lines long, 1-5th to 1-4th line broad. Posterior extremity bent, dilated, terminating in a thick, oval, strongly muscular receptacle or acetabulum, truncated posteriorly and excavated into a deep conical cavity, containing a strong hook, with the point directed forward, 1-200th in. long, with a base 1-400th in. broad. Œsophagus, in an individual 8½ lines long, 1 line long by 1-666th in. broad at commencement, 1-333d in. at termination. Intestine 1-450th in. broad. Ovum 1-570th in. long, 1-3333d in. broad.

Habitation. Stomach and commencement of the small intestine of Emys guttata.

Remarks.—The female hangs suspended by its posterior hook from the mucous membrane of the stomach of the Emys, in which it is parasitic, while the male clings closely to the female by means of its spiral folds, retaining its position readily from the roughness of surface produced by its numerous ventral tubercles, and also those upon the tail. I found this entozoon three times, in 15 individuals of Emys guttata. In one instance it was a large female; in the second two, average size females, and one male; in the third instance the stomach was distended with the worms, of which about one in five or six was male, and usually clung to the largest of the females.

CUCULANUS, *Müller*.

2. CUCULANUS TRISPINOSUS, *n. s.*

Body reddish, narrow, cylindrical, finely striated, attenuated at the extremities. Mouth large, sustained by a red or brown corneous capsule, presenting 8 radiating ribs or lines upon each side of a middle line. Œsophagus of two portions; the first, elongated pyriform; the second cylindroid, a little dilated at its lower end. Intestine simple, cylindrical, a little narrower than the œsophagus.

Male.—3 lines long, 1-200th to 1-160th in. broad at middle. Posterior extremity curved, acute, furnished on each side ventrally, with an expansion of the integument, of nearly uniform breadth, 1-800th in., to its termination, commencing 1-50th in. above the end of the tail, and perforated by 6 nearly equidistant respiratory canals. Tail 1-300th in. long from anus. Anal and generative apertures indicated by a prominent lip, and separated by a small conical papilla. Penis consisting of two corneous, curved spiculæ; one 1-56th in. long, the other 1-200th in. long.

Female.—Viviparous, 6 lines long, 1-100th to 1-90th in. broad. Tail straight, long conoidal, 1-111th long from anus, obtuse, terminated by 3 minute points 1-4000th in. long. Generative aperture surrounded by a very prominent lip, a little posterior to the middle. First portion of œsophagus 1-66th in. long; 1-200th in. at broadest part; second portion, 1-56th in. long.

Habitation.—Small intestine of Emys guttata.

TÆNIA, *Linn.*

3. TÆNIA PULCHELLA, *n. s.*

White, without any admixture of any other color, variable, usually broadest anteriorly. Head quadrilateral, sub-clavate, obtusely rounded, broader than the neck. Acetabula circular, cup-shaped, lateral and opposite, sessile, protractile. Neck very long, cylindroid. Articuli containing several colorless globules; anteriorly subglobular or transversely oval; posteriorly moniliform, longitudinally oval, or cylindroid and centrally incrassate.

Measurements.—*Longest* 9 in. Articuli commencing to be distinctly separate 6 in. from the head. Breadth anteriorly [illegible] line; posteriorly 1-6th line. Anterior articuli 1-6th line long; posterior [illegible] line. Acetabula, 1-166th in. diameter.

Smallest 2 in. Head, 1-75th in. broad. Articuli commencing distinctly separate [illegible] in. from the head. Broadest part of neck, 1-90th in.; short distance posterior to the head, 1-125th in. Anterior articuli 1-100th in. diameter; posterior 1-44th in. long; 1-200th broad at extremities, 1-133d in. broad at middle. Acetabula, 1-200th in. diameter.

Habitation.—Small intestine of Bufo americanus.

Remarks.—Closely resembles the Tænia dispar, *Goeze*, found in the Bufo viridis, etc., but it is relatively longer and narrower, and is never colored.

PLANARIA, *Müller.*

4. PLANARIA SYLVATICA, *n. s.*

Body elongato-fusiform, thick, becoming narrowed forward, smooth, shining; superiorly convex, grayish with a fuliginous stripe down each side of the dorsal line, and a transverse spot of the same color, at, or just posterior to the centre: inferiorly compressed, whitish; anteriorly attenuated, proboscidiform; tip recurved, fuliginous, obtuse; posteriorly broadest, terminating acutely. Eyes two, black, globular, lateral, slightly prominent.

Length 2 to 5 lines; breadth at the anterior fourth, [illegible]th of a line; at posterior fourth, [illegible]th of a line.

Habitation.—Beneath stones, flower-pots, and boxes, in gardens in Philadelphia, and under fragments of wood, bark, old logs, etc., in forests in the neighbor hood of Philadelphia.

Remarks.—This is the first terrestrial planaria which has been detected in North America. I accidentally discovered it first beneath several flower boxes, and pots in the small garden attached to my residence in this city, since which, I sought for and found it in the hilly woods bordering the Wissahicon Creek and Schuylkill River. In its movements it resembles a slug (Limax,) and like this leaves behind it a mucous trail. When in motion, the anterior portion of the body is much elongated, and very narrow, and the portion anterior to the eyes is recurved. Frequently it raises the anterior third of the body from the ground, moving it from side to side as if in search of something. The recurved portion inferiorly, is flat, with the edges often inflected.

When at rest, the body is contracted into an oblong form, and the head lies doubled upon the back. The longest will contract to 2½ lines in length by ½ a line in breadth, and ⅓rd line thick posteriorly, and ¼th line wide anteriorly.

The coloring matter upon the back is arranged in faint transverse annuli, accumulating upon each side of the middle into a longitudinal line, and a transverse spot about the centre.

The eyes are globular, apparently composed of a vitreous humor, two-thirds enveloped with a black pigment. They are situated laterally, the 1-100th to the 1-48th of an inch posterior to the extremity of the head, and measure about the 1-500th in. in diameter.

The mouth is inferior and a little posterior to the centre. Œsophagus keg-shaped, about 1-50th in. long. From the acute tail end is secreted a delicate mucou sthread.

The planaria appears not to like the water, for although it will live for some hours beneath the surface, when prevented from rising, yet it always seeks to leave it and remains out when it has escaped.

In the same forest localities with the planaria, is found an insect larva, possessing similar habits, which upon careless inspection might be mistaken for it. The movements of the larva are more rapid and vermicular.

PLANARIA, *Müller*.

Sub-genus nov. BDELLOURA.*

Characters same as Planaria, without tentaculæ, and the posterior extremity of the body separated by a constriction serving as a disk of attachment.

5. BDELLOURA PARASITICA, *n. s.*

Body milk white, with a faintly yellowish intestine showing through the translucent integument, smooth, thin, lanceolate, or spatulate; anteriorly narrowed, obtuse; lateral margins, thin, undulating; constricted portion posteriorly truncated, nearly as broad as the middle of the body. Eyes two, reniform. Œsophagus simple, cylindrical, campanulate when protruded.

Length from 3 to 10 lines; breadth 2-5ths to 2¼th lines. The longest may contract to 6 lines by 3½ lines.

Habitation.—Parasitic upon the King Crab, Polyphemus occidentalis, *Lam.*

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*βδελλα, a leech; ȣρα, tail; because the animal adheres by the tail like a leech.

Found often in great numbers, adhering with considerable tenacity by means of the posterior constricted extremity of the body, to the under surface of the branchial covers, the branchial laminæ, and to the extremities, especially in the vicinity of the joints.

Remarks.—When the king crab is removed from the water, its planaroid parasite retires to the deepest recesses between the limbs and other external organs to avoid evaporation. The parasite moves with a gliding motion like the species of Planaria, and also by fixing the posterior extremity and extending the anterior part of the body to its greatest length, and then abruptly detaching and drawing forward the former, like the leeches. At other times it fixes itself posteriorly, and waves the anterior portion of the body to and fro through the water.

Attached to the branchial laminæ of the king-crab, are frequently observed ochreous or brownish, oval, compressed cysts, from ¼th to 2 lines long, and 1-6th to 1 line broad, attached by a short pedicle at one extremity, and unusually closely applied to the surfaces between the branchial laminæ, which are receptacles or ova ? of the Bdelloura parasitica. Occasionally the margin of the cysts is provided with a fringe of short, irregular, blackish filaments. Sometimes these cysts exist in such numbers as to have the appearance of flaxseed sprinkled between the branchial laminæ.

6. **Bdelloura rustica**, *n. s.*

Body brownish or blackish, translucent, lanceolate; anteriorly narrowed, obtuse; lateral margins thin, undulating; constricted portion truncated posteriorly, with parallel margins. Eyes two, reniform. Œsophagus simple, cylindrical.

Length 2 to 3 lines; breadth 2-5ths to 4-5ths of a line.

Habitation.—Egg Harbor bay, New Jersey, upon Ulva latissama, *Linn.*

Remarks.—Movements same as in the preceding species. When free in water it moves with great rapidity, and rises to the surface in the manner of the leech, or the larva of the gnat.

Gen. nov. MYZOBDELLA.*

Body elongated, compressed fusiform, smooth. Head continuous with the body, subinfundibuliform, obliquely ventrally terminal. Mouth central, unarmed. Acetabulum ventrally obliquely terminal, concave, not corneous.

7. **Myzobdella lugubris**, *n. s.*

Body cylindro-fusiform, in transverse section, elliptical, black olivaceous green; anteriorly narrowed, cylindroid; posteriorly incrassate. From 15 to 18 annulations. Integument translucent, permitting the sacculated intestine of a black green hue, to be visible. Acetabulum circular, concave, a little larger than the oral disk.

When elongated 10 lines, by ½ line in breadth posteriorly, 1-5th of a line anteriorly. Will contract to 4 lines by 4-5ths line in breadth.

Habitation.—Parasitic upon the common edible crab, Lupa dicantha, *M. Edw.*; usually found attached about the base of the limbs.

MECKELIA, *Leuckart.*

8. **Meckelia lactea**, *n. s.*

Body very soft, milk white, in transverse section lenticular, convex above and below; when extended, very much compressed, more especially posteriorly, incrassate rounded just posterior to the head; lateral margins, thin, undulating; posterior extremity thin, sub-acute. Head compressed, conical or hastate, anteriorly obtuse, breadth at base 1 line; lateral cleft 1½ lines long. Generative aperture longitudinally oval.

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*μυζω, I suck; βδελλα, a leech.

Greatest length 6 inches: ordinarily 5 inches, by 3 lines in breadth, and 1 line in thickness: may contract to 1 inch in length, by 2 lines in breadth, and 1½ lines in thickness.

Habitation.—In mud and sand under stones, dead shells, etc., in positions uncovered at low tide, upon the coast of Great Egg Harbor, New Jersey.

Remarks.—The more it is extended the broader and thinner it becomes, especially posteriorly. When free in water, it swims like the eels, and in such cases, the broad surfaces of the body are more or less vertical.

9. MECKELIA ROSEA, *n. s.*

Body bright flesh-colored with fainter lateral margins, and a central darker line inferiorly; in transverse section oblong, convex superiorly, flattened inferiorly; when elongated, becomes cylindroid; posteriorly, obtuse. Head compressed, conical or hastate, whitish. Generative aperture distinct, round.

Length from 2 to 6 inches; ordinarily about 5 inches.

Habitation.—With the preceding species.

Remarks.—As it elongates it approaches more the cylindrical form, becoming thicker and narrower.

The Committee on Mr. Cassin's descriptions of new species of Laniadæ, reported in favor of its publication in the Proceedings.

Descriptions of new species of birds of the family Laniadæ, specimens of which are in the collection of the Academy of Natural Sciences of Philadelphia.

BY JOHN CASSIN.

1. *Lanius pallidirostris*, nobis.

Form.—Bill rather long and compressed, wings rather short with the third quill distinctly longest, general form robust, and that of typical Lanius. About the size of *L. septentrionalis*, Gm.

Dimensions.—Total length of skin from tip of bill to end of tail, about 8½ inches, wing 4¼, tail 4½ inches.

Colors.—Adult. Bill pale horn color. Upper surface of the head, with the back and rump pale cinereous, scapulars white and conspicuous, wings with a large patch of white on the primaries, and with the secondaries broadly tipped with white.

A stripe of black through the eye, very narrow on the nares, but wider behind the eye. Entire under-surface white, with a delicate, pale rosy tinge, most observable on the breast. Tail, with the two external feathers on each side, white, each with a narrow longitudinal line of black on the shaft, slightly widening into both webs, other tail feathers black, tipped with white, except the two in the centre, which are pure black. Tarsi and claws pale brown.

Hab.—Eastern Africa.

Obs.—This fine species, of which there is one specimen only in the Rivoli collection, may be distinguished readily from all others known to me by its very pale horn-colored bill, and the pale rose-red tinge of the under parts of the body. The cinereous plumage above, is paler than that of *L. excubitor*, and it is without the white patch on the middle of the *secondaries*, which is so obvious in that species. It is more nearly related to *L. meridionalis*, but is smaller and much lighter colored.

2. *Lanius pallens*, nobis.

Form.—Bill rather weak, wings and tail rather long, but with the general form of typical Lanius. About the size of *L. minor*, Gm.

Dimensions.—Total length of skin from tip of bill to end of tail about 8 inches, wing 4, tail 4½ inches.

Colors.—(Specimen not in mature plumage.) Rump and entire under surface pure white. Head above and back cinerous, wings black, with a large patch of white on the middle of the primaries, and with the secondaries edged and broadly tipped with white, tail, with the two external feathers on each side white, with the shafts black, others black with white tips, very narrow on the four central feathers.

A black stripe through the eye, above which is a stripe of white.

Bill and tarsi dark horn-color.

Hab.—Fazogloa, Eastern Africa.

Obs.—This species considerably resembles the preceding, but differs in having the rump white, and appears to be, so far as preserved specimens can be relied on, a smaller and more slender bird; the bill is not so long nor powerful. Two specimens are in the Rivoli collection, neither of which are fully adult.

3. *Laniarius quadricolor*, nobis.

Form.—Much resembling that of *L. gutturalis* (*Daud.*) but is smaller, and the tail more rounded. Wings short, rounded, fourth, fifth and sixth primaries longest and nearly equal.

Dimensions.—Total length of skin from tip of bill to end of tail, about 7½ inches, wing 3¼, tail 3½ inches.

Colors.— ♂ Adult. Generally resembling those of *L. gutturalis* (*Daud.*) but with the abdomen and ventral region yellow and the basal portion of the tail olive green. Entire superior surface of the head, body, and wings olive green, which is also the color of a basal third of the external, and of three-fourths of the central tail feathers. Throat fine scarlet, stripe through the eye and wide pectoral band, black; beneath the latter a badly defined band of yellowish scarlet, fading into the rich greenish yellow of the abdomen, under tail coverts yellowish scarlet. Bill black, paler at the base, tarsi and feet pale brown.

♂ young.—Resembling the adult, but with the tail entirely green, and the throat, under parts of the body and inferior tail coverts pale greenish yellow; a trace of black lines on the feathers of the breast, and of scarlet on those of the throat.

Hab.—Port Natal, Eastern Africa.

Obs.—Of this beautiful bird two adult males and several young birds are in the collection of this Academy. They are from the collection of Mr. Verreaux of Paris, and were acompanied by this significant memorandum, "consideree comme differente de la *gutturalis*." I have invariably found that M. Verreaux's opinion of species is of the greatest value, in fact almost infallible.

This bird may readily be distinguished from the larger *L. gutturalis*, of which we have specimens also, by the characters above indicated, and especially by its yellow abdomen.

4. *Dryoscopus sublacteus*, nobis.

Form.—Bill and legs rather long, wings rounded with the fourth to the eighth quills nearly equal and longest, plumage of the rump downy and profusely developed. Somewhat larger than *D. Gambensis* (Licht.)

Dimensions.—Total length of skin from tip of bill to end of tail, about 7¾ inches, wing 3¾, tail 3½ inches.

Colors.—Adult. Entire plumage of the head and body above, wings and tail glossy black; downy plumage of the rump grayish white at base and tipped with black, (as in D. rufiventris (Swainson) Le Vaill. Ois. d'Af. pl. 68, and D. ethiopicus, (Gm.) Rupp. Uebersicht, pl. 23.)

Under plumage entirely very pale ochraceous white or cream color, deepest on the flanks, (same color as in D. ethiopicus.) No white markings on the wings nor other part of the plumage.

Bill black, tarsi paler.

Hab.—Eastern Africa?

Obs.—A general resemblance exists between the bird now described and several other species of Dryoscopus, but it is peculiar in having the fine cream-colored under surface of the body, and no white marks whatever on the wings.

5. *Dryoscopus atrialatus*, nobis.

Form.—Bill long, wings with the fourth quill longest, tail rather long and ample. Generally similar to *D. affinis* (G. R. Gray,) but is larger, being about the size of *D. Gambensis* (Licht.)

Comparative Dimensions.

	D. atrialatus.	D. affinis.
Total length of skin from tip of bill to end of tail, about	7¼	6¼ inches.
wing,	4	3¼
tail,	3½	2¾

Colors.—Adult. Very similar to those of *D. affinis* (G. R. Gray) and generally to those of *Chaunonotus Sabinei* (J. E. Gray.)

Entire upper surface, except the rump, deep black; under parts and rump white. Wings clear black, with no white edgings or tips to either quills or coverts, tail black, shafts of the feathers white at base beneath, bill black, tarsi brown.

Inferior wing coverts black, (white in *D. affinis.*)

Hab.—Eastern Africa?

Obs.—One specimen only of this bird is in the Rivoli collection. It was labelled "*L. Sabinii*," having evidently been mistaken for *Chaunonotus Sabinei* above alluded to, which has recently been added to the collection of the Academy, but from which the bird now described is generically distinct. It is very similar to D. affinis, but may readily be distinguished by its larger size and black inferior wing coverts.

The Committee to which was referred Mr. Dana's communication, reported in favor of its publication in the Proceedings.

Conspectus Crustaceorum quæ in Orbis Terrarum circumnavigatione, Carolo Wilkes e Classe Reipublicæ Fæderatæ Duce, lexit et descripsit J. D. DANA.

Descriptio Familiarum Subfamiliarum Generorumque Crustaceorum Grapsoideorum in Ephemeride Scientiarum Americana Sillimani, vol. xii, p. 283, anno 1851, auctore edita. Synopsis brevis Familiarum et Subfamiliarum sequens:—

CRUSTACEA GRAPSOIDEA, (CYCLOMETOPA, Edwardsii.)

1. ARTICULUS MAXILLIPEDIS EXTERNI 4TUS ANGULO 3TII INTERNO ARTICULATUS.

Fam. I. GONOPLACIDÆ, vel GRAPSOIDEA CANCRIDICA. Gen. *Eucrate* De Haan, *Curtonotus* De H. (*Pseudorhombila*, Edw.), *Gonoplax* Leach.

2. ARTICULUS MAXILLIPEDIS EXTERNI 4TUS ANGULO 3TII INTERNO NON ARTICULATUS.

Fam. II. MACROPHTHALMIDÆ.

Sub-fam. 1. Macrophthalminæ.—Gen. *Cleistostoma*, De H., *Macrophthalmus*, Latr.

Subfam. 2. Ocypodinæ.—Gen. *Gelasimus*, Latr., *Helæcius*, Dana (*Gelasimum cordiformem* amplectens), *Ocypoda*, Fabr., *Scopimera*, De H.

Subfam. 3. Dotinæ.—Gen. *Doto*, De H.

Fam. III. GRAPSIDÆ.

Subfam. 1. Grapsinæ.—Gen. *Pseudograpsus*, Edw., *Eriocheir*, De H. (*Utica*, White), *Platynotus*, De H., *Brachynotus*, De H., *Trichopus*, De H. (*Varuna*, Edw.), quorum maxillipedibus externis vix hiantibus; *Grapsus*, Lamk., *Goniograpsus*, Dana (*Graps. cruentatum*, *messor*, etc., amplectens), *Planes* Leach (*Nautilograpsus*, Edw.), *Hemigrapsus*, Dana (*Cyclograpsus* partim, Edw.), *Cyrtograpsus*, *Dana*,—maxillipedibus externis rhomboidicé hiantibus.

Subfam. 2. Sesarminæ.—Gen., *Sesarma*, Say (*Pachysoma*, De H.), *Sarmatium*, Dana,—quorum, articulo maxillipedis externi 3tio apicem rotundato; *Cyclograpsus*, Edw. (*Gnathochasmus*, M'Leay), *Chasmagnathus*, De H., *Helice*, De H.,—quorum articulo maxillipedis externi 3tio apicem truncato et sæpe excavato.

Subfam. 3. Plagusinæ.—Gen. *Acanthopus*, De H. (*Plagusiam clavimanam* amplect), Plagusia, *Latr*.

Fam. IV. GECARCINIDÆ.

Subfam. 1. Ucainæ.—Gen. *Uca*, Leach, *Gecarcinucus*, Edw., *Cardisoma*, Latr. *Gecarcoidea*, Edw.

Subfam. 2. Gecarcininæ.—Gen. *Gecarcinus*.

Fam. V. PINNOTHERIDÆ.

Subfam. 1. Pinnotherinæ.—Gen. *Pinnothera*, Latr., *Fabia*, Dana, *Xenophthalmus*, White, *Xanthasia*, White, *Pinnixa*, White, *Pinnotherelia*, Lucas.

Subfam. 2. Hymenicinæ.—Gen. *Hymenosoma*, Leach, *Halicarcinus*, White, *Hymenicus*, Dana, *Elamena*, Edw.

Fam. VI. MYCTIRIDÆ.—Genus *Myctiris*.

Specierum Grapsoidearum adhuc ineditarum Descriptiones.

FAM. I. GONOPLACIDÆ, vel GRAPSOIDEA CANCRIDICA.

GENUS EUCRATE, *De Haan.*

Eucrate crassimanus.—Carapax nudus, bene areolatus, margine antero-laterali 4-dentato, dentibus tribus posticis prominenter triangulatis; fronte fere recto, medium emarginato. Pedes antici crassi, subæqui, nudi, læves, inermes, manu infra compressâ, carpo intus breviter acuminato, brachio in margine postico prope apicem unidentato. Pedes 8 postici sat graciles, marginibus ciliati, tarso recto, infra hirsuto.

Long. carapacis 10‴; lat. 13‴. *Hab.* in portu "Rio Janeiro?"

FAM. II. MACROPHTHALMIDÆ.

SUBFAM. I. MACROPHTHALMINÆ.

GENUS MACROPHTHALMUS.

Macrophthalmus Pacificus.—Carapax valde transversus, nudus et lævis, margine laterali arcuato, anterius 2-emarginato, emarginatione anteriore profundâ, posteriore obsolescente, fronte latiusculo et lateribus non excavato. Oculi graciles, sat breves, tertiam latitudinis carapacis partem longitudine æquantes. Pedes maris antici parvuli, læves, manu extus nudâ, subtiliter punctatâ et non costatâ, digito inferiore non deflexo. Pedes postici marginibus pubescentes, articulo pedis 4ti 3tio duplo latiore quam 5tus, apice cum dente acuto armato.

Long. carapacis 4‴, lat. 5½‴. *Hab.* insulâ "Upolu."

SUBFAM. II. OCYPODINÆ.

GENUS GELASIMUS, *Latreille.*

Gelasimus nitidus.—*G. Duperreyi* similis. Carapax nitidus, antice paulo arcuatus, fronte angustissimo, paulo constricto. Pedes *maris* antici valde inæqui, manu majore multo compressâ et latâ, extus valde granulatâ, intus cristis duobus obliquis ornatâ, digito superiore laminato, fere duplo latiore quam inferior, inferiore juxta basin uni-dentigero. Pedes 8 postici fere nudi, articulo 3tio pedis 5ti perangusto.

Long. carapacis 6¼‴. *Hab.* archipelagine "Viti."

GENUS HELŒCIUS, Dana.

Helœcius inornatus.—Carapax convexus, nudus, angulis anticis fronte posterioribus. Pedes antici sat breves; carpo non duplo longiore quam latiore, margine interno angulato; manu latâ, parte palmari paulo oblongâ. Segmentum abdominis ultimum breviter transversum, penultimo subito angustius. Articulus pedum 3tius supra tomentosus.

Long. carapacis 6‴; lat. 8¼‴. *Hab.* ad oras australes Novi-Hollandiæ. *Helœcii cordiformis* (*Gelasimi cordiformis* auctorum) manus carpusque multo longiores quam in *inornato*; segmenta abdominis breviora, ultimo non subito angustiore quam penultimum.

FAM. III. GRAPSIDÆ.

SUBFAM. I. GRAPSINÆ.

GENUS PSEUDOGRAPSUS, *Edwards.*

Pseudograpsus Oregonensis.—Carapax parce areolatus, regione medianâ leviter circumscriptâ, cum lineâ transversâ antice levissimè notatâ et margine hujus regionis antice abrupto; fronte sinuoso; margine antero-laterali bi-emarginato, dentibus acutis. Pedes antici læves, manu extus nudâ, infra obsolete uni-costatâ, intus partim lanosâ, carpo lævi, digitis *maris* hiantibus. Pedes postici margines paulo hirsuti, præcipue articulorum 4ti et 5ti.

Long. carapacis 10‴; lat. 11½‴. *Hab*. in Oregoniæ freto "Puget."

Pseudograpsus nudus.—Carapax obsolete areolatus, regione medianâ vix circumscriptâ, cum lineâ elevatâ non intersectâ, areolâ intramedianâ (3 M) non circumscriptâ; fronte paulo arcuato; margine antero-laterali leviter bi-emarginato. Pedes toti nudi; antici æqui, manu extus nudâ, lævi, infra levissimè costatâ, intus partim lanosâ, carpo lævi; 8 postici paulo lati, tarso sulcato.

Long. carapacis 10½‴; lat. 12½‴. *Hab*. in Oregoniæ freto "Puget."

GENUS GRAPSUS.

1. Grapsus planifrons.—*G. variegato* similis, fronte fere horizontali, sat lato. Articulus maxillipedis externi 3tius vix oblongus. Margo carapacis lateralis bene arcuatus, antero-lateralis bi-emarginatus. Epistoma brevissimum. Pedes antici sat crassi, manu supra pustulatâ, extus infraque lævi; brachio apicem anticum 5—6-denticulato. Pedes 8 postici valde compressi, articulo 3tio pedis postici ad apicem inferiorem integro, penultimo supra scabro.

Long. carapacis 17½‴; lat. 19‴. *Hab*. ad oras juxta urbem "Valparaiso."

2. Grapsus longitarsis.—Carapax nudus, regione medianâ granulatus; fronte abrupto, perangusto; lateribus parce arcuatis, margine antero-laterali 1-emarginato. Articulus maxillipedis externi 3tius vix oblongus. Epistoma breve, utrinque acutè cristatum. Pedes antici sat parvi, manu carpoque supra parce granulatis, manu extus fere lævi, infra leviter costatâ. Pedes postici nudi, tarso elongato, spinulis dorsi multo brevioribus.

Long. carapacis 9½‴; lat. 10½‴. *Hab*. in archipelagine "Paumotu."

Grapsus crinipes.—*G. livido* affinis. Carapax nudus, sublævis, fere quadratus, fronte sat abrupto, margine antero-laterali 1-emarginato. Pedes antici fere æqui, carpo manu digitoque mobili superne granulatis, manu extus fere lævi, nec costatâ; brachio ad apicem anticum 5—7-denticulato. Pedes postici sparsim criniti, articulo tertio lato, tarso perangusto, lineari, paulo curvato. Margo epistomatis posticus valde arcuatus.

Long. carapacis 9½‴; lat. 11½‴. *Hab*. ad insulas "Sandwich."

GENUS GONIOGRAPSUS, *Dana*.

Goniograpsus simplex.—*G. vario* similis. Carapax fere quadratus, lateribus postice vix convergentibus, fronte paulo declivi, parce sinuoso, margine antero-laterali 1-emarginato. Carpus supra minutè rugatus; manus extus lævis, supra paulo rugata. Articuli pedum 8 posticorum 4tus 5tusque sparsim hirsuti; 3tius pedis postici apice inferiore truncatus, integer, pedis 4ti 3tiive 2—3-dentatus.

Long. carapacis 4‴; lat 4½‴. *Hab*. in portu "Rio Janeiro." ?

Goniograpsus innotatus.—Carapax fere quadratus, lateribus postice convergentibus, fronte sat declivi, margine antero-laterali 1-emarginato, lineis transversis carapacis subtilissime crenulatis. Carpus supra lævis; manus supra extusque lævis; brachium apice 2—3-dentatum. Articulus pedis postici 3tius apice inferiore 3-dentatus.

Long. carapacis 7‴; lat. 9‴: long. frontis 5½‴. *Hab*. ad oras Americæ Australis ?

GENUS PLANES, *Leach*.

Planes cyaneus.—Pedes octo postici valde compressi, articulis tribus ultimis extus dense villoso-ciliatis. Abdomen maris angusto-triangulatum, duplo longius quam latius, 7-articulatum, articulo 3tio latiore, breviore quam 4tus, ultimo triangulato.

Long. 6'''—8'''. *Hab*. in mari Pacifico, lat. bor. 28°, long. orient. 174°.

GENUS HEMIGRAPSUS, *Dana*.

Hemigrapsus crassimanus.—Carapax subtiliter granulatus, margine antero-laterali leviter 2-emarginato, dentibus brevissimis, rotundatis, etiam emarginatione 3tiâ obsoletâ. Pedes *maris* antici crassi, nudi, carpo supra indentato. Pedes sequentes tenues, articulo 3tio supra fere nudo, infra lanoso, reliquis margines plerumque pubescentibus, 5to supra sulcato, tarso gracili. Abdomen maris perangustum, articulo ultimo anguste elongato.

Long. carapacis 6¼'''; lat. 6¾'''; long. frontis 2¾'''. *Hab*. ad insulas "Sandwich."

Hemigrapsus affinis.—*H. crassimano* fermè affinis. Manus *maris* crassa, minus tumida, antice paulo compressa, digitis hiantibus. Articulus pedis 2di, 3tii, 4tive 3tius infra villosus, supra partim pubescens. Pes 5tus articulis 4to 5to 6toque infra supraque pubescens. Margo carapacis antero-lateralis 3-emarginatus, emarginationibus duabus posticis parvulis.

Long. carapacis 7'''. *Hab*. portu "Rio Negro" Patagoniæ.

GENUS CYRTOGRAPSUS, *Dana*.

Cyrtograpsus angulatus.—Carapax angulato-gibbosus, granulosus, nudus, margine antero-laterali fere recto, 4-dentato, margine postero-laterali leviter uni-dentato. Pedes *maris* antici crassi, granulati, manu supra paulo truncatâ, carpo intus truncato. Pedes 8 postici fere nudi, articulo 5to supra sulcato, tarso sulcato.

Long. carapacis 17¾'''; lat. 21''', long. frontis 6'''. *Hab*. portu "Rio Negro," Patagoniæ.

SUBFAMILY II. SESARMINÆ.

GENUS SESARMA, *Say*.

Sesarma obtusifrons.—Carapax quadratus, sat transversus, postice paulo angustior, omnino bene granulatus, granulis sparsis, lateraliter nec lineolatus, margine antero-laterali integro, fronte perpendiculari, supra rotundato, margine frontali arcuato. Epistoma granulatum. Pedes antici mediocres, carpo manuque supra granulatis, manu extus lævi, digitis nudis. Pedes postici granulati, articulo 5to brevissime sparsim hirsuto, 4to fere nudo.

Long. carapacis 4'''; lat. ant. 5¼''', post. 4¼'''. *Hab*. ad insulas "Sandwich."

Sesarma obesum.—Carapax crassus, quadratus, parce areolatus, postice vix angustior, punctatus, non nitidus, lateribus fere arcuatis, nulla parte acutis, margine antero-laterali integro; fronte perpendiculari, supra fere recto, infra bene arcuato. Epistoma granulatum. Pedes antici breves, manu brevi, non granulatâ, superne integrâ et brevi. Pedes 8 postici angusti, articulo 4to non hirsuto, 5to sparsim breviter hirsuto, tarso breviter hirsuto.

Long. carapacis 6''': lat. 6¾'''. *Hab*. freto "Balabac."

GENUS SARMATIUM, *Dana*.

Sarmatium crassum.—Carapax crassus, supra lævis, lateribus valde arcuatus, ronte fere recto, margine antero-laterali leviter 2-emarginato, dentibus rotundatis. edes antici *maris* breves, manu supra transversim 4—5-plicatâ, extus fere ævi, digito supra breviter 4-subspinoso, carpo plerumque lævi, supra paulo eriatim granulato.

Long. carapacis 6½‴; lat. 7‴; alt. thoracis 4½‴; long. frontis 3‴. *Hab*. ad nsulam Samoensem "Upolu."

GENUS CYCLOGRAPSUS, *Edwards*.

1. **Cyclograpsus cinereus.**—Carapax parce transversus, non areolatus, paulo itidus, non granulatus. Orbita infra plerumque circumscripta. Articulus maxillipedis externi 3tius valde oblongus, 2do non brevior, pubescens, cristâ fere ad ngulum 2di externo-posteriorem productâ. Digiti intus denticulati. Articulus edis 2di 5tus apice non tomentosus, tarso non spinuloso, lineis angustis tomenosis supra ornato. Abdomen maris fere rectangulatum, postice parce angustius ateribus subparallelis, rectis, segmento postico elongate triangulato, triplo ngustiore quam penultimum. Sternum pone aream buccalem pubescens.

Long. carapacis 6‴, lat. 7½‴: long. frontis 3‴. *Hab*. ad oras Chilenses; uoque ad insulas "Sandwich."

2. **Cyclograpsus granulatus.**—Carapax non areolatus, antice paulo granuatus. Orbita infra incompleta. Articulus maxillipedis externi 3tius vix oblongus, do multo brevior, nudus, cristâ tenui, pilosâ, angulum 2di externo-anteriorem ntersecante tantum, 2dus nudus. Articulus pedis 2di 5tus apice non tomentosus, arso lineis tomentosis paulo laxis ornato, non spinuloso. Manus glabra, nitida, igitis *maris* intus non denticulatis. Abdomen *maris* eo *C. cinerei* fere simile, ateribus vix excavatis, segmento postico parce oblongo, apice late rotundato. ternum pone aream buccalem nudum.

Long. carapacis 3.7‴; lat. 4.6‴. *Hab*. ad oras insulæ "Maui" Hawaiensis.

GENUS CHASMAGNATHUS, *De Haan*.

1. **Chasmagnathus subquadratus.**—Carapax convexus, lævis, postice paulo unctatus, paulo areolatus, fronte margineque antero-laterali uti in *C. granulato*, ateribus parce arcuatis, areolâ præmedianâ antice vix notatâ. Maxillipedes xterni sternique pars proxima brevissime hirsuti. Pedes antici posticique lerumque uti in *C. lævi*, manu non granulatâ, minute punctatâ. Regio terygostomiana breviter reticulata. Articulus pedis 2di 5tus infra non tomensus, supra anticeque tomentosus. Abdomen lateribus excavatum, basi latius, argine ciliatum.

Long. carapacis 8‴; lat. 9½‴; long. frontis inter oculos 4‴. *Hab*. ad oras ovi-Zealandiæ? Novi-Hollandiæ orientalis?

2. **Chasmagnathus granulatus.**—Carapax valde convexus, sat areolatus, ronte sinuato, medio depresso et juxta marginem medianum minute apiculato; argine antero-laterali tenui, 2-inciso, dentibus triangulatis, acutis. Margo pistomatis inferior fronte prominentior. Pedes antici *maris* crassi, subæqui, ranulati, carpo intus acuto, manu supra tenui et paulo obtusâ. Pedes postici alde compressi, articulis 4to 5to dorso paulo tomentosis, 5to pedis 2di infra non

tomentoso, tarso tenui, tenuiter sulcato et sulcis hirsuto. Abdomen *maris* lateribus fere rectum.

Long. carapacis 15'''; lat. 17½'''; long. frontis inter oculos 7'''. *Hab.* palude juxta lacum "Peteninga" urbi "Rio Janeiro" vicinum.

3. **Chasmagnathus lævis.**—Carapax convexus, lævis, vix granulatus, paulo areolatus, fronte margineque antero-laterali plerumque uti in *C. granulato*, fronte juxta marginem medianum non apiculato, areolà præmedianà antice præruptà. Epistoma fronte non prominentius. Pedes antici *maris* æqui, manu leviter granulatà, supra non tenui. Pedes postici angustiores, articulus pedis 2di 5tus infra antice supraque tomentosus. Abdomen lateribus fere rectum vel obsolete excavatum.

Long. carapacis 11½'''; lat. 14'''; long. frontis inter oculos 6'''. *Hab.* in portu "Sydney" Novi-Hollandiæ Orientalis.

GENUS HELICE, *De Haan.*

Helice crassa.—Carapax subquadratus, margine laterali antice bi-emarginato, fronte dimidii latitudinis carapacis longitudine. Manus brevis et lata, superne subcarinata, extus fere lævis, minute granulata. Articulus pedum sequentium 3tius supra subacutus. Regio pterygostomiana granulata, leviter pubescens.

Long. carapacis 5½'''; lat. 6¼'''. *Hab.* ad oras "Illawarræ" Novi-Hollandiæ Orientalis.

SUBFAM. III. PLAGUSINÆ.

GENUS ACANTHOPUS, *De Haan.*

Acanthopus abbreviatus.—Carapax subquadratus, non oblongus, supra omnino tomentosus lineis nudis nullis; fronte uti in *planissimo* sed latiore; margine antero-laterali 4-dentato, dente 2do inconspicuo. Pedes *maris* antici æqui, manu vix inflatà, supra sulcatà. Abdomen *maris* angustius, lateribus excavatum.

Long. carapacis *maris* 6'''. *Hab.* ad oras insulæ "Tahiti."

GENUS PLAGUSIA.

1. **Plagusia speciosa.**—*P. squamosæ* affinis. Margo antero-lateralis 3-dentatus.

Long. carapacis 14''': lat. 15'''. *Hab.* archipelaginis "Paumotu" insulâ "Waterland."

2. **Plagusia glabra.**—Carapax lævis, glaber, margine antero-laterali 4-dentato, fronte superne oblique subcristato, non spinigero. Pedes *maris* antici perbreves, parte manus palmari breviore quam altiore, supra granulatâ, extus lævi et non costatâ, carpo fere lævi. Articulus pedum 8 posticorum 3tius lævis, non multispinosus. Articulus maxillipedis externi 3tius quadratus, parce oblongus.

Long. carapacis maris 9''' ; lat., dentibus exclusis, 9''', dentibus inclusis 9⅜'''. *Hab.* ad oras Novi-Hollandiæ Orientalis.

FAM. IV. GECARCININÆ.

SUBFAM. I. UCAINÆ.

GENUS CARDISOMA.

Cardisoma obesum.—Carapax obesus, undique convexus, lateribus anterolateralibus valde tumidis, linea angulove marginis omnino carentibus. Articulus

externæ 1mus transversus, apice utrinque productus et subacutus,
e granulatus, processu orbitam antennamque sejungente subtriangulato,
:o, non truncato.
carapacis 3″; lat. 3½″; long. frontis inter oculos 12‴; lat. areæ buc-
:ice 9‴. *Hab.* archipelagine "Paumotu."

SOMA HIRTIPES.—Carapax longitudinaliter convexus, margine laterali
otatus, prope dentem post-orbitalem minute apiculato, areolâ præmedianâ
ıxta frontem paulo abruptâ, regione pterygostomianâ piloeâ. Processus
talis orbitam antennamque externam sejungens triangulatus, trihedricus.
ıs antennæ externæ 1mus rectangulatus apice recte truncatus. Pedes
ntici crassi, subæqui, sat breves, manu punctatâ, digitis late hiantibus.
ostici hirti.
carapacis *maris* 22½‴; lat. 28‴; long. frontis 7½‴; lat. areæ buccalis
½‴, postice 8½‴. *Hab.* insulis "Viti."

FAM. V. PINNOTHERIDÆ.

SUBFAM. I. PINNOTHERINÆ.

GENUS PINNOTHERA, *Latreille*.

THERA FABA.—Carapax late transversus, nudus, paulo nitidus. Maxilli-
xterni nudi, vix obliqui. Oculi parvuli. Pedes antici *feminæ* breves,
ıpra rotundata, digitis subtiliter pubescentibus. Pedes postici perbreves,
culi, articulo 3tio pedis 4ti triplo breviore quam carapacis latitudo, tarso
nai crasso, subconico, apice uncinato.
. carapacis *feminæ* 5½‴; lat. 8‴. *Hab.* in freto "Puget" Oregoniæ.

GENUS FABIA, *Dana*.

A SUBQUADRATA.—Carapax (feminæ) subquadratus, antice rotundatus,
atior quam longior, nudus, nitidus. Maxillipedes externi nudi, valde
Oculi minimi. Suturæ post-frontales fere parallelæ. Pedes antici
ı) sat tenues, manu elongatâ, infra 2 lineis pubescentibus (lineâ unâ usque
i extremitatem productâ) ornatâ. Pedes 8 postici sat graciles, articulo
ra partim pubescente, 5to infra pubescente, tarso brevi, dimidii articuli
itudine, uncinato.
. carapacis 5½‴; lat. 6½‴; lat. inter suturas post-frontales 2½‴. *Hab.* in
Puget" Oregoniæ.

SUBFAM. II. HYMENICINÆ.

GENUS HALICARCINUS, *White*.

CARCINUS PUBESCENS.—Carapax ovato-orbicularis pone medium latior.
longitudine mediocres, 8 postici laxe pubescentes. Abdomen *maris*
ım, fere lineare, apice triangulatum.
. 1½‴. *Hab.* in mari, juxta Patagoniam orientalem, altitudine 50
orum.

GENUS HYMENICUS, *Dana*.

YMENICUS VARIUS.—Carapax lævis, nudus, planus, ovato-orbiculatus, vix
rsus, fronte expansus et trilobatus, lobis rotundatis, margine antero-laterali
ıs duobus obsoletis remote armato. Abdomen *maris* angustum, subtrian-
n, segmento basali latiore et utrinque triangulato, penultimo angustiore

quam precedens, ultimo paulo oblongo, apice rotundato. Pedes antici mediocres; 8 sequentes tenuissimi, nudi aut nudiusculi.

Long. 2‴—3‴. *Hab*. ad oras portus "Bay of Islands" Novi-Zealandiæ.

2. HYMENICUS NOVI-ZEALANDIÆ.—Carapacem, frontem, pedesque *H. vario* similis. Abdomen *maris* lineare, segmentis penultimo precedentibusque duobus latitudine æquis, ultimo triangulato, non oblongo, obtuso. An varietas *varii?*

Hab. ad oras portus "Bay of Islands."

3. HYMENICUS PUBESCENS.—Carapax pubescens, ferme orbiculatus aut vix ovato-orbiculatus, postice arcuatus, rostro parvulo simplicissimo, rotundato et marginem pubescente, margine carapacis omnino integro, inermi. Abdomen *maris* angustum, lineari-subtriangulatum, segmentis penultimo precedentibusque duobus fere æquis, postice parce angustantibus, ultimo subtriangulato, paulo oblongo, obtuso. Pedes breviter pubescentes; antici mediocres; sequentes tenues.

Long. 1½‴—2‴. *Hab*. in portu "Bay of Islands."

ELECTION.

Robert Swift, Esq., of St. Thomas, West Indies, was elected a *Correspondent*, and Mr. William H. Allen, President of Girard College, was elected a *Member* of the Academy.

DONATIONS TO MUSEUM

In July and August, 1851.

July 1st.

Crustacea of the genera Aletecyclus, Grapsus, Chlorodius and Lissa, Portunus, from the Mediterranean, and Cypridina, from the British Seas; Mollusca, of the genera Crenella, Modiola, Galleonoma, Pupa, Helix, Cardita, Lucina, Spiralis, Arca, Buccinum, Astarte, Chiton, Pinguicula, Leda, Pecten, Nacra, Emarginula, Terebratula, Kellia, from the South of Europe, North of Africa, &c. Presented by Mr. McAndrew.

Very fine specimen in skin of Rupicola peruviana, from near Quito. Presented by M. Bourcier.

Crustacea from Pembrokeshire, Wales, of the genera Hyas, Amphithœ, Hippolyte, Talitrus, Crangon, Palæmon, Ebalia, Portunus, Porcellana, Carcinus. From E. & C. Wilson, of Pembrokeshire.

Palinurus Burgerii, Doclea muricata, Matuta Peronii, from Borneo; Pagurus, Carcinus, Portunus, Porcellana, Stenorhynchus, Cancer, Crangon, from Pembrokeshire; Asterias, Solaster, Heuricra, Palmipes, Ophiophis, Ophiothrix, Astropecten, Echinus, Amphidotus, Brisiopsis, from the British Seas; also, Pecten niveus, Serpula serrulata. Presented by Edward Wilson, Esq.

July 8th.

Crustacea of the genera Palæmon, Portunus, Crangon, Ebalia, Eurynome, Ligia, Galathea, Cancer, Hyas, Inachus, Pinnotheres, Idotea, Pagurus, Armadillo, Carcinus, Stenorhynchus, Anonyx, Ophiolepus, Pilumnus and Xantho, from the British Seas; Echinodermata, &c., of the genera Echinus, Palmipes, Ophiura, Spatangus, Solaster, Asterias, Ophiothrix, Echinocardium, Pavonaria, Brissus, Turbinola, Caryophillia, from the British Seas; also portions of rock, with attached Terebratula, Crania and Serpula from the British Seas. From Mr. Edward Wilson.

Fine specimens of Panopœa and Venus mercenaria, from St. Mary's County, Maryland. Presented by Mr. J. Gilliams.

Unio favidens, U. marginatus, 6 ages, Paludina ceranicoponæa, P. Bengalensis, Limnæa chalmys, Planorbis compressus, P. indicus, Pupa pullus, P. bicolor, Bulimus pretiosus, B. gracilis, Succinea crassiuscula. From Theodore Cantor, M. D., of the Bengal Medical Staff.

Three specimens of Erinaceus europæus, four of Talpa vulgaris, from Scotland. From Dr. Gavin Watson.

July 15th.

Numerous specimens of Silurian fossils, from the vicinity of Orwigsburg, Pa., and fragments of rock, with organic remains, from near Smyrna, Del. From W. Parker Foulke, Esq.

Fine specimen of a Silurian fossil, from near Orwigsburg, Pa. From Thomas Bannan, Esq.

Four Silurian fossils, from Keokuk, Mississippi, and one do. from the Falls of St. Anthony; Asphaltum, from Arkansas; Agate pebbles, from Lake Pepin. Presented by Mr. M. Maslin.

Seven specimens of Minerals, from near the Yellow Springs, and Reading, Pa. Presented by Mr. Isaac Lea.

July 22d.

Marsupium of Didelphis virginiana, containing four embryos of about six days old, three of them adherent to the nipple. Prepared by Dr. Goddard and preserved in Goadby's Solution. Presented by Dr. C. D. Meigs.

August 5th.

Five specimens of Ephialtes asio, male, female and three young. From Mr. Samuel Powel.

Seven specimens of Phosphate of Lime, from Huntsville, Morris Co., N. J. From Dr. J. C. Fisher.

August 12th.

Mounted specimens of Tamias Lysterii, Mustela erminea, (white pelage,) Philadelphia Co., and the same in brown pelage, from England. Presented by Mr. William Wood.

Fossil Spatangus, from the Marl, Salem Co., N. J. From Dr. Zantzinger.

Alumina, with peroxide of iron, used as a mineral paint, from the new red sandstone near Norristown, Pa. Presented by Aubrey H. Smith, Esq.

August 19th.

Head of the Walrus, Trichecus rosmarus, from the Arctic Ocean. Presented by Sandwith Drinker, Esq., of Hong Kong, China.

Hirundo rustica, and Emberiza rustica?, from Japan. From Lieut. Edward Brinley, U. S. N.

Three specimens of Fucoides Alleghaniensis, from the Juniata river, near Lewistown, Pa. Presented by Dr. Joseph Ard.

DONATIONS TO LIBRARY

IN JULY AND AUGUST, 1851.

July 8th.

Annales des mines. 4me. serie. 6me liv. de 1850, 1me. liv. de 1851. From the Ecole des Mines.

Catalogue of Malayan Fishes. By Theodore Cantor, M. D. 8vo. From the author.

The Pennsylvania Farm Journal. S. S. Haldeman, editor. Nos. 1—4. From the editor.

On the geographical distribution of the Bulimi. By Lovell Reeve. From the author.

Leeds Philosophical and Literary Society. Annual report for 1849, '50. From the Society.

Proceedings of the Geological and Polytechnic Society of the West Riding of Yorkshire, 1850. From the Society.

Journal of the Indian Archipelago and Eastern Asia. Vol. 5, Nos. 1 and 2. From the editor.

Archiv für Naturgeschichte. Herausgeg. von Dr. F. H. Troschel. Nos. 3, 4, 5, 1849, No. 1, 1850. From the editor.

Contributions to Ornithology. By Sir Wm. Jardine. Pts. 1 and 2, 1851. From H. E. Strickland, Esq.

Proceedings of the Linnean Society of London. Nos. 35—43. From the Society.

List of the Linnean Society of London, for 1850. From the same.

Dr. Wilson presented the following, on the usual condition:—

Systematische Beschreibung der bekannten europäischen zweiflügeligen Insekten. Von J. W. Meigen. 2 vols. 8vo.

History of the expedition, under Capts. Lewis and Clark, to the sources of the Missouri, &c. American edition, by Paul Allen. 2 vols. 8vo.

The Natural History of Ireland. Vol. 3. Birds. By W. Thompson, Esq. 8vo.

The Birds of Australia. By John Gould. Supplement. Part 1.

Annales de la Société Entomologique de France. 2e serie. Nos. 1—4, 1850. No. 1, 1851.

Annals and Magazine of Natural History. 2d. series. Nos. 40, 41.

Thesaurus Conchyliorum. By. G. B. Sowerly, Jr. Part 12.

Etudes sur les Echinides fossiles. Par M. Cotteau. Nos. 7 and 8.

Phycologia Britannica. By Wm. H. Harvey, M. D. Nos. 57 and 58.

History of British Mollusca and their shells. By Prof. Forbes and S. Hanley. Parts 37 and 38.

Journal of the Franklin Institute for June, 1851.

Zeitschrift für Malakozoologie. Von R. T. Menke, M. D. und Dr. L. Pfeiffer. Nos. 8, 9, 10, 1850.

Revue et Magasin de Zoologie. Par M. Guerin-Méneville. No. 10, 1850. Nos. 3 and 4, 1851.

Proceedings of the Zoological Society of London. 1850. pp. 81—192.

Illustrations of British Mycology. By Mrs. T. J. Hussey. 2d series. pts. 4 and 5.

Abbildungen und Beschreibungen neuer oder wenig gekannter Conchylien. Von Dr. R. A. Phillippi. No. 5. Vol 3.

Conchologia iconica. By Lovell Reeve. Parts 96 and 97.

The London Athenæum for May, 1851.

The Genera of Diurnal Lepidoptera. By E. Doubleday. Continued by J. O. Westwood. Part 42.

Histoire naturelle des Mollusques. Par M. de Ferussac: continue par M. Deshayes. No. 41.

July 15th.

Memoires sur la Digitaline: par MM. Homolle et Quevenne.

Proceedings of the American Philosophical Society. January to July, 1851. From the Society.

Bulletin de la Société Imperiale des Naturalistes de Moscou. An. 1849, No. 4. An. 1850, Nos. 1 et 2. From the Society.

The Charleston Medical and Surgical Journal and Review. July, 1851. From the editor.

Experimental researches on the unity and diffusion of nervous action. By Bennett Dowler, M. D. From the author.

Contributions to the natural history of the Acalephæ of North America. By L. Agassiz. Part 2. From the author.

Reports of reconnoissances of routes from San Antonio to El Paso; report of Capt. Marcy's route from Fort Smith to Santa Fé; and report of Col. Simpson of an expedition into the Navajo country. 8vo. From Col. Abert, U. S. Topog. Engineers.

Smithsonian contributions to Knowledge. Vol. 2. 4to. From the Smithsonian Institute.

July 22d.

The London Athenæum for June, 1851. From Dr. Wilson.

The Franklin Institute Journal for July, 1851. From the same.

August 5th.

Historical Discourse before the Graduates of Yale College, Aug. 14, 1850. By T. D. Woolsey. From Mr. E. C. Herrick.

Catalogus Collegii Yalensis, 1850. From the same.

On the coloring matter of red sandstone and of greyish and white beds associated with them. By J. W. Dawson, Esq. From the Author.

Smithsonian Reports. Notices of Public Libraries in the United States. By C. C. Jewett, Librarian of Smithsonian Institute. From the Institution.

The following were presented by Mr. Edward Wilson on the usual condition:—

Memoire sur les ossemens fossiles d'Elephans trouvés en Belgique. Par M. Chas. Morren.

Ordonnance concernant les enfans trouves et abandonnes.

La caisse d'Epargne et les Oursins. Par le Baron Charles Dupin.

Observations et questions concernant les moyens d'ameliorer la situation des ouvriers agriculteurs. Par M. de Rainneville.

Extrait des proces verbaux des Seances de la Soc. des Jeunes Liberes du Department de la Seine.

Catalogue des coquilles recueillies dans le Department du Puy de Dome, et determinees d'apres les ouvrages de MM. Draparnaud et Michaud. Par M. J. B. Bouillet.

Sur la theorie de la population. Par M. de Morel-Vinde.
The Income Tax Act. By William Nicholson.
Société Philautropique. Prix proposes en faveur des Memoires qui auront le mieux établi les bases et les conditions d'association applicables aux Sociétés de Savans mutuel et de Prevoyance.
Compte rendu des travaux de la Société des jeunes libérés.
Musei Indici index.
De Pteropodum ordine et novo ipsius genere. Ab. J. F. G. Kósse.
J. F. Blumenbachii specimen Historiæ naturalis ex auctoribus classicis.
De Pleurobranchæa novo Molluscorum genere. Ab. S. F. Leue.
Ittiologia Adriatica. Di F. Luigi Naccari.
Parergon ad L. H. Bojani anatomen Testudinis, &c.
Rapports et comptes rendus de la Caisse d'Epargne de Paris pendant l'annee 1837.
Über die fossile Reptilien welche im Wurtemburg aufgefunden worden sind. Von Geo. F. Jaeger, M. D.
Prodrome d'une monograph des Radiaires ou Echinodermes. Par Louis Agassiz.
Memoire sur le Delphinorhynque microptére. Par B. C. Dumortier.
Cosmus C. Cuno observationes Microscopia.
Remarques zoologiques et anatomiques sur l'Hyperodon. Par M. Deslongchamps.
H. Livii Van Altena commentatio ad questionem systematica enumereatur species indiginee reptilium ex ordine Batrachiorum.
Dalmatiæ nova Serpentium genera. Auctore F. L. Fleischman.
Ueber die Polypen im Allgemeinen und die Actinien insbesondere. Von W. Rapp.
Dissertation sur les Poissons qui se rapprochant le plus des animaux sans vertebres. Par A. M. Constant Dumeril.
Considerations sur les Montagnes Volcaniques. Par M. Collini.
Compte rendu de la Société de Charité maternelle de Paris, Annees 1835—1840.
Mémoire descriptif et Ostéographic de la Baleine. Par L. Companyo.
Horæ Tergestinæ: oder Beschriebung und Anatomie der im Herbste 1843 bei Triest beobachteten Akalephen. Von J. G. F. Will.
De Ranis nonnullis observationes anatomicæ. Auctore G. A. Steffen.
Sulla Scoperta dello Scheletro di un Quadrupede colossale fra Strati marini fatta in colle del Placenten dal Cav. Cortesi.
Des alten Grönlands neue perlustration, oder naturell-histoire und Beschreibung der Situation, Beschaffenheit, Lufft und des Temperaments dieses Landes. Von Hans Egede. 4to.
Promptuarium Rerum Naturalium et Artificialium Vratislaviense præcipue quas collegit D. J. Chr. Kundmann. 4to.
Genera et species Plantarum Fossilium. Auctore F. Unger. 8vo.
Pseudodoxia Epidemica: or enquiries into very many received tenets and commonly presumed truths. By Dr. Thomas Browne. Folio.
Memorie per servire alla storia di Polypi Marini di Filippo Carolini. 4to.
Ueber die grosse Seeblase (Physalia arethusa) und die Gattung der Seeblasen im Allgemeinen. Von J. Fr M. v. Olfers.
Memoire sur la Conformité Organique dans l'Echelle animale. Par Ant. Duges.
Orthoptera descripta et depicta a F. de Charpentier. Fascic. 1—10. 4to.
De corporibus marinis Lapidescentibus. Auctore Aug. Scilla. 4to.
Illustrations of the recent Conchology of Great Britain and Ireland. By Capt. Thos. Brown. 2d edition. 4to.
Sammlung meistens Deutscher Vögel. Von D. Ben. Chr. Vogel. Folio.
Honneurs funébres a la memoire de M. de Montyon.
Descrizione dei Pesci e dei Crostacei fossile nel Piemonte dell Dott. Eugenio Sismonda. 4to.
Aparato para la historia Natural Espanola. Tomo primo. Auctore el Rmo. P. Jos. Torrubia. Folio.

Beiträge zur Entwickelungsgeschichte des Hühnchens im Eye Von Dr. Pander. Folio.

Recherches anatomiques sur les Reptiles regardes comme douteux par les naturalistes. Par F. G. Cuvier.

Description des coquilles fossiles de la famille des Rudistes. Par Oscar Rolland du Roquan. 4to.

Entomologie Française. Rhyncotes. Par C. J. B. Amyot. 8vo.

August 12*th*.

Historia naturalis Curculionum Sueciæ. Auctore G. Bonsdorff. 2 pts. 4to.

Note por una Bibliografia Malacologica serio al 1840 inclus. (Porro.)

Observations upon a report of the Select Committee on Salmon Fisheries, Scotland. By Robert Knox.

Memoire sur quelques coquilles fossiles nouvelles du Bassin Sous-Pyreneen. Par M. J-B-Noulet.

Revue critique des Poissons fossiles figurés dans Littiolitologia Veronese. Par L. Agassiz.

Catalogue des Mollusques marins sur les cotes des Boulonnais. Par M. Bouchard-Chantereux.

An essay on Scientific nomenclature. By the Rev. F. O. Morris.

Observations sur l'emploi de l'Escargot ingéré vivant. Par L. Legrand.

Discours sur la Zoologie fossile. Par M. le Dr. Grateloup.

Summary of the Progress of the Zoological Society of London for 1850. By D. W. Mitchell.

Zoological Society of London. Account current for 1850.

Descriptive catalogue of Shells. (Gray.)

Organisation de la Sociéte Philomatique et réglement de ses travaux.

Proceedings of the Berwickshire Naturalists' Club. No. 18 and No. 1, Vol. 3.

Amtlicher Bericht über die Versammlung deutscher Naturforscher und Arzte zu Breslau im Sept. 1833. Von J. Wendt und A. W. Otto.

Transactions of the Entomological Society of London. 1st series, 5 vols. 2d series, pts. 1, 2 and 3; and Journal of Proceedings of same, Nos. 1—10.

Taxidermy made easy, &c. By John Tyrer. 12mo.

A treatise on the form of Animals, by the late Henry Cline, Esq. By J. P. C. 12mo.

Bibliographie entomologique. Par Charles Nodier. 12mo.

Chambers' Educational Course. Rudiments of Zoology. 8vo.

Essai sur les cavernes à ossements et sur les causes qui les y'ont accumules. Par Maneul de Serres. 3^{me}. ed. 8vo.

The Harleian Diary System. By William Harley. 8vo.

A diary of the wreck of H. M. S. Challenger on the Western Coast of South America in May, 1835. 8vo.

Botanique cryptogamique. Par J. Payer. 8vo.

Die Cetaceen Zoologisch-anatomisch dargestellt. Von W. Rapp. 8vo.

Musæum Plossionum zoologicum. 8vo.

Notions élémentaires de Statisque. Par J. J. O. D'Halloy. 8vo.

The complete Horseman and expert Farrier. By Thomas De Grey, Esq. 2d edition. 4to:

De Diergaarde en het Museum van het genootschap Natura artis magistra te Amsterdam. Door E. Schlegel. 8vo.

Descrizione di una nuova famiglia e di un nuovo generi di Testacei di Catania. Da Guiseppe Gioni. 8vo.

Tabular view of the principal fossiliferous deposits of the British Isles. By John Morris.

Encyclopédie d' Histoire Naturelle. Mammiferes, series 4 et 5.

Histoire naturelle des Crinoides vivans et fossiles. Par Alcide D'Orbigny. Nos. 1 et 2.

Recent Conchology of Great Britain and Ireland.

September 2d, 1851.

Vice President Bridges in the Chair.

A letter was read from the Trustees of the New York State Library, dated Albany, August 11th, 1851, acknowledging the receipt of late numbers of the Proceedings.

Also a letter from Mrs. Charlotte H. Townsend, dated Philadelphia, 1851, returning her acknowledgments for certain resolutions recently adopted by the Academy.

Mr. Lea remarked that he had observed in a recent number of the Proceedings of the Boston Society of Natural History, a communication on the subject of the "Wave Theory," in regard to the dynamics of earthquakes. He observed that this "wave theory" was by no means of as recent a date as was generally imagined, and stated that Dr. Franklin, while in France in 1782, distinctly suggested this wave motion, produced by a central force reaching to an immense distance. Mr. L. read part of Dr. Franklin's letter to the Abbé Soulavie, (Trans. Am. Phil. Soc., Vol. 3, p. 1, old series,) dated at Passey, September 22d, 1782, in which he says, "But we are still subject to the accidents on the surface, which are occasioned by a wave in the internal ponderous fluid: and such a wave is producible by the sudden violent explosion you mention, happening from the junction of fire and water under the earth, which not only lifts the incumbent earth which is over the explosion, but impressing with the same force the fluid under it, creates a wave that may run a thousand leagues, lifting thereby successively all the countries under which it passes."

September 9th.

Vice President Bridges in the Chair.

A communication was read from Aug. A. Gould, M.D., and D. Humphreys Storer, M.D., Executors of the late Amos Binney, M.D., of Boston, dated Boston, July, 1851, presenting, in accordance with his will, a copy of Vols. 1 and 2 of his work on the Terrestrial Mollusks of the United States.

Dr. Leidy called the attention of members to a fragment of rock a few inches square, covered upon one surface with numerous root-like fibres, which he stated belonged to a species of branching, fresh water, ciliated polyps of the genus Plumatella. The piece had been broken from a slab 18 inches square, which was entirely covered upon its under surface in the same manner. The species he characterized as follows:

PLUMATELLA, *Bosc.*

PLUMATELLA DIFFUSA, *n. s.*

Polypidom diverging from a centre over large surfaces, consisting of a series of simple curved branches, from one to two lines long, rising from one another upon the convex side, and attached throughout their length except at the extremities for 1-4th to 2-5ths of a line, which are erect, keg-shaped, or a little dilated at the middle and contracted at the orifices. Border of the orifices deeply emarginate and continuous with a fissure down the inner or concave side of the branches, upon the summit of a slight ridge. Color dirty olivaceous brown, with the erect extremities of the branches yellowish or translucent whitish.

Polyp with 42 divergent, sigmoid tentaculæ, arranged at their summits in the outline of a reniform disk. Length of the tentaculæ about 3-5ths line. Color of the stomach greenish yellow.

Ovum with its marginal sheath semi-oval, 1-68th in. long, 1-333d in. broad. Sheath whitish, translucent, smooth, cellular; with the aperture upon its convex side 1-142d in. in diameter; that upon the flat side 1-133d in. Ovum lenticular, reddish brown.

Habitation.—Upon the under surface of stones which do not come in contact entirely with the ground, in running brooks and creeks emptying into the Schuylkill and Delaware rivers, and also in the latter.

Remarks.—This species of Plumatella appears to prefer for its residence stones of large size. It is not common to find it on such as are under 3 or 4 inches square, but is frequently seen covering surfaces closely from one to several feet square, upon which I have counted from 150 to 300 polyps to the square inch. It also flourishes best in the course of currents of moderate strength.

The object of its occupying the under surface of stones appears to be not so much to escape from the light, as it is to favor the removal of the abundant excrement, which is voided in the form of oblong, greenish or clay colored pellets.

The interior structure of Plumatella corresponds pretty closely with those of Alcyonella.

The extruded ova are frequently found attached to rocks, generally by the flat side, but sometimes by the convex side.

The sheath of the ovum is composed of transparent colorless cells, about the 1-4000th in. in diameter.

Whilst observing this species of Plumatella under a lens, I noticed several small aquatic larvæ, probably of a species of Hydrophilus according to my friend Dr. Le Conte, which would advance the anterior part of the body, up the erect portion of the branches of the polypidom, with all the stealth of a spider, until upon a level with the margin of the orifices, when they would suddenly dart with great rapidity upon the body of the polyps: but in every instance for a quarter of an hour in which I observed them, the latter succeeded in escaping by contracting within the tubes, where the larvæ appeared not to be disposed to follow them.

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Dr. Leidy observed that he had for some time past been collecting materials towards elucidating the natural history of the family of Gordiaceæ, *Siebold*, upon which he was now preparing a memoir for the Journal.

Our most common species has been confounded with the Gordius aquaticus, *L.*, of Europe, but a striking character at once proves it to be distinct. The caudal extremity of the female is trifurcated, while that of the European species is blunt.[*] The length is from 4 to 12 inches. Of this species there are several varieties from different localities, which may upon further comparison prove to be distinct species.

To this species the name Gordius varius was proposed. A second species of

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[*] Siebold: Arch. f. Naturg. 1838, p. 303.

Gordius was obtained by Professor Baird from a spring in Essex county, New York. It is very much more delicate than the former, and from 5 to 7 inches long. The female caudal extremity is blunt The male caudal extremity is bifurcate and fringed with peculiar epidermoid appendages.

For this second species the name Gordius lineatus was proposed.

Dr. L. also had found several remarkable species of Mermis, *Dujardin*.

Eleven specimens of one species were procured by Dr. Budd from a ditch in New Jersey. These are yellowish white in color, and from 6 to 18 inches in length. To the species the name Mermis elongata was given.

A second species was found in a ditch near Philadelphia. It is pure white in color, 8 inches long, and has a peculiar tubercular thickening of the integument upon the caudal extremity. For this species the name Mermis crassicaudata was proposed.

Dr. L. further remarked that he had lately had an opportunity of repeating his former investigations* upon the embryology of Gordius varius.

The embryology of Gordius aquaticus, *L.*, had been studied and published by Gruby† before he had published his notes, but he did not know it at the time, which he considered important, as the observations conducted in two parts of the world, though differing in several specific points, were generally confirmatory of one another.

The perfect embryo of Gordius varius differs so much from the parent that it is impossible to recognise the latter in the former. This has two circles of protractile tentaculæ, each of six, and a protractile proboscis, not uncinate, however, as in the embryo of Gordius aquaticus‡, no trace of which exist in the parent. The body of the embryo consists of two portions, and is distinctly annulated, while the parent is simply hair-like in form, and has no trace of an annulated integument. Gruby remarks he never saw the Gordius, excepting the embryo, shorter than 3½ inches,§ so that between the annulose, tentaculated embryo, in the Gordius varius the 1-466th of an inch in length, and the parent of at least 3½ inches, nothing whatever is known of the history of the animal. Gordii have been stated upon numerous and the most reliable authorities to have been seen in the body of insects, so that from the embryo to the parent, there may probably be a series of forms in alternating generation, entozoic and ectozoic, as numerous and unlike as has been observed in the development of certain species of Distoma.

The Gordius varius is prolific in a very remarkable degree. A female 9 inches in length placed in a tumbler of water, September 25th, up to the present time has extruded a string of ova 49 inches in length and still actively continues the process.

September 16*th.*

Vice President Bridges in the Chair.

Dr. Le Conte, of New York, read a continuation of his paper, entitled "An attempt to classify the Longicorn Coleoptera of the part of America north of Mexico;" which being intended for publication in the Journal, was referred to Dr. Zantzinger, Dr. Leidy, and Prof. Haldeman.

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* Proc. Acad. Nat. Sci., Vol. 5, p. 98.

† Archiv fur Naturgesch. 1849, p. 358.

‡ Ibid, pl. 7, fig. 10.

§ Ib. p. 374.

Dr. Leidy presented a paper entitled "Conspectus Crustaceorum quæ in Orbis Terrarum circumnavigatione, Carolo Wilkes e Classe Reipublicæ Fœderatæ duce, lexit et descripsit J. D. Dana," intended for publication in the Proceedings of the Academy. Referred to the committee on a former paper on the same subject by Mr. Dana.

A letter was read from the Imperial Society of Naturalists of Moscow, dated 6th and 18th May, 1851, presenting the numbers of the Bulletin of that Institution announced this evening.

Dr. LeConte exhibited a series of tertiary fossils from San Diego, California; they bore the closest resemblance to species now living on that coast: the formation is of great extent along the coast, although very narrow. In passing from San Diego to the Colorado river, he observed that these tertiary beds were soon succeeded by various kinds of porphyry, and these by sienitic metamorphic rocks; the upper beds of these exhibited a very curious arrrangement, being light coloured, with fusiform masses of darker sienite, all placed with their longitudinal axes parallel. The sections of these masses were 5—18 inches long, and 1½ to 3 inches thick; these metamorphic rocks became more granitic, and in some places gneissoid in their character towards the central part of the Sierra. Near Valleido these micaceous strata were much contorted. The eastern range of the Sierra at this point consists entirely of a very coarse conglomerate, containing rounded masses from the above mentioned metamorphic rocks of immense size: the cement is granitic gravel, with a very small amount of calcareous matter. Dr. LeConte was inclined to consider this chain, which is near 5000 feet high, as belonging to the cretaceous epoch; it is flanked by a small deposit of unstratified drift, which becomes stratified a few miles distant from the base of the mountains. Underlying the drift is a tertiary formation containing small beds of sandstone and gypsum, precisely as at San Diego: only Ostrea were found in these beds. In a small hill north of Cariso Creek, he had found limestone beds composed almost entirely of Gnathodon, and farther in the desert the same shell was found in strata of clay, lying almost vertically. The desert has two levels, the lower being covered with alluvium, containing numerous Planorbis and Anodon, with smaller fresh water species now inhabiting the Colorado; the upper level is about 50 to 70 feet above this alluvium, and consists of stratified matter usually very sandy, and belongs to the drift epoch. The range of sand hills is formed from the lighter portions of this upper level near the edge. In the northern part of the desert is a salt lake, on the edge of which is a solfatara with boiling water and mud; some of the water issues in jets from small cones of inspissated mud, which form over the circular pools. The water deposited large quantities of sal ammoniac tinged with sulphur, and within a short distance from these pools are eight small volcanic mounds of lava and pumice; for many miles stranded pieces of pumice are found on the alluvial level.

Dr. LeConte also expressed his opinion that the Vancouver Island coal belonged, like that found in Oregon, to the tertiary epoch; it was very fragile and light, exhaled a peculiar odor which is characteristic of tertiary lignites.

It existed in a single stratum (as he learned from persons who had visited the bed,) of 22 inches in thickness, horizontal, and but a short distance from the surface. The shafts sunk had not yet reached any other deposit.

No distinct vegetable impressions had been found, although Dr. L. had carefully examined a large quantity of the coal. He considered the existence of true carboniferous deposits in California highly improbable.

Dr. Leidy called the attention of the members to a pyriform mass, about three inches long by one and a half broad at the base, suspended in a vessel of water. This, he said, consisted of numerous Polypi within their Polypidom encrusting a dead branch of a tree, and was taken from a similar mass one yard long, with an additional lateral branch two feet long, found in a ditch below the city. The species he characterized as follows:

CRISTATELLA, *Cuv.*

CRISTATELLA MAGNIFICA, *n. s.*

Polypidom massive, fixed, encrusting bodies from a few inches to several feet in length, by a few lines to 2 inches in diameter, gelatinoid, consistent, hyaline, with numerous polypi upon the free surface arranged in close, irregular areolæ.

Polypi furnished with 2 lobes conjoined together in the form of U, enclosing the mouth at the base, and having diverging from the margins from 50 to 60 sigmoid tentaculæ arranged at the summit in the double outline of U, with the extremities of the arms of the latter inclining towards each other. Lip elevated, with the base of the tentacular lobe, and the lower fourth of the inner margin of the tentaculæ in the vicinity of the mouth, lake or dark rose-red colour; œsophagus colorless; stomach longitudinally folded, yellowish brown; rectum dilatable, hyaline, its extremity slightly projecting but retractile.

Length from the bottom of the stomach to the top of the extended tentaculæ 1½ lines. Long diameter of tentacular expanse ½ to 3-5th line. Length of tentaculæ 1-40th in.; breadth 1-1000th in.

Ovum lenticular, brown, enclosed at the margin by a brownish white, annular, cellular sheath, 1-200th in. deep upon one side, 1-166th in. upon the other side, furnished at its outer edge with 11 to 16 appendages 1-200th in. long, terminating in a double, rarely a triple hooklet. Ovum with its sheath, thin, discoidal, bent, 1-33d in. broad, with its appendages enveloped in a hyaline, albuminoid mass; when ripe floating.

Habitation.—Upon dead branches or twigs of trees, in ditches or sluggish streams in the neighbourhood of Philadelphia, in shaded situations.

Remarks.—The extent of this polyp appears to be determined by that of its basement of attachment. It is usually found surrounding twigs or dead branches of trees which have fallen into the water, and is permanently fixed to its position.

The surface of the polyp mass has the appearance of being covered with a dense mucor from the numerous tentaculæ projecting from it. Immediately beneath this is a layer having a faint roseate hue from the red colouring in the vicinity of the mouth of the polypi, then succeeds a layer of a dirty yellowish color, arising from the stomach of the animals, beneath which are numerous opaque, white, yellowish, and brown spots, which are ova in various stages of development, and finally the greater depth of the mass consists of a perfectly hyaline, consistent, gelatinoid substance.

After the death of the animals, and their bodies and tubes have macerated from the surface of the Polypidom, their bases upon the areolæ of attachment have an irregular stellate or lobate appearance, which penetrate in a convergent manner to the nuclear twig or branch. The decaying mass has a strong odor in a remarkable degree like that of putrid fish.

The animal is not so irritable as Plumatella, but is like it capable of entirely retracting within its tube, in which state the stomach appears transversely wrinkled.

The ova as they are detached from the mass rise near, or to the surface of the water and float.

There is probably some confusion existing in the distinction of the genera Cristatella and Alcyonella, as characterized by Cuvier, Lamarck, Allman, &c., but if correct then C. magnifica would belong to a new genus between Cristatella, *Cuv.*, and Alcyonella, *Lam.*, for while the polyp and its ovum correspond to the former, the polypidom corresponds to the latter. Should it prove distinct I propose for it the name *Pectinatella.*

Dr. Leidy further stated as follows:

The female Gordius which he had mentioned at the last evening, as having extruded from September 25th up to that time a cord of ova 49 inches in length, had continued the process until Sunday evening, October 7th, up to which time it had expelled in fragments from a few lines to one foot in length, in all a cord 91 inches long, in which he estimated there were over 6,000,000 ova. Dr. L. exhibited the cord of ova preserved in alcohol, which was long and white and resembled a piece of cotton thread.

September 23d.

Vice President Bridges in the Chair.

A letter was read from the Linnean Society of London, dated June 5th, 1851, acknowledging the receipt of numbers 6 and 7, Vol. 5, of the Proceedings of the Academy.

Dr. McEuen exhibited a specimen of the fruit of Paullownia imperialis, from the garden of Mrs. J. B. Smith of this city.

September 30th.

Vice President Bridges in the Chair.

The committee to which was referred the continuation of Dr. Le Conte's paper on the Longicorn Coleoptera of the United States, reported in favor of publication in the Journal.

The Committee to which was referred Mr. J. D. Dana's paper, read 16th inst., reported in favour of publication in the Proceedings.

Conspectus Crustaceorum quæ in Orbis Terrarum circumnavigatione, Carolo Wilkes e classe Reipublicæ Fœderatæ Duce, lexit et descripsit J. D. Dana.

PAGURIDEA.

The Paguridea include two groups, distinguished by peculiarities in the form of the inner antennæ, outer maxillipeds, and some other characteristics;—the one *aquatic* in habit, and the other *subterrestrial*. They are as follows:

Fam. I. Paguridæ.—Inner antennæ short, first joint very short. Palpus of maxillipeds with a multiarticulate flagellum. Aquatic or littoral.

Fam. II. Cenobitidæ.—Inner antennæ very long, the first joint of the base as long as the eyes or longer, and bent obliquely downward. Palpus of outer maxillipeds without a flagellum. Subterrestrial.

The Paguridæ have hitherto been divided into but two genera; *Pagurus*, with unsymmetrical abdomen, and *Cancellus*, (Edw.) with symmetrical. There are, however, important characteristics, which point to a division into other groups. These have been partly indicated by Milne Edwards, in the subdivisions of the genus Pagurus, laid down in his work on Crustacea,* and more distinctly in the Annales des Sciences Naturelles, for July, 1848.† In the latter article there are discrepancies in certain instances, between the character of the species and those mentioned for the subdivisions, which we find it difficult to reconcile; such as the placing of *P. tibicen*, and some related species, with his "Æquimanes," when, in fact, the left hand is very much larger than the right, and the *guttatus* and *granulatus* with the "Senestres," although, in the former, the hands are nearly equal, as in many of the "Æquimanes," and in the latter the right hand (as is observed in his "Crustacés") is actually the larger. Yet his sections are, in the main, natural groups, and some of them have more important points of distinction than he has mentioned.

The *Pagurus Bernhardus* is the type of one of these groups. Besides being "dextres," they are peculiar in having *acuminate fingers*, with the tips of those of the larger hand *calcareous*; and although the feet of the 4th pair are subcheliform, like most other Paguridæ, the scabrous area or rasp of the hand is confined nearly to the posterior edge. Moreover, the species belong mainly to colder waters, while the ordinary Paguri abound especially in the tropics. All the Paguri of England (or with but one uncertain exception, recently pointed out,) are of the *Bernhardus* type; those of the Northwest coast of America are the same. We naturally, therefore, distinguish this group as a genus under the name of Bernhardus.

Among the remaining Paguri, the larger part have the feet of the 4th pair subcheliform, the penult joint being broad, and the last (or tarsus) forming a finger placed on its anterior margin. Yet, a few have these feet vergiform, the tarsus being terminal; and these species are also peculiar, in having two pairs of slender appendages at the base of the abdomen, on account of which they are called the "Pagures appendiculés" by Edwards. Besides, they have the flagellum of the outer antennæ more or less hairy, and often long ciliate along the under side, and, also, the inner antennæ have a longer base than usual, the 2d basal joint reaching nearly, or quite, to the extremity of the eyes. These species make a well characterized group, which we name *Paguristes*.

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* Crustacés, ii, 213, and Annales des Sci. Nat. [2], vi, 257.

† Ann. des Sci. Nat. [3], x, 59.

Another small group is singular in having a rostriform appendage to the ophthalmic joint; they are the "Pagures armés" of Edwards, including *P. miles* and *P. custos*, the former the *Cancer Diogenes* of Herbst. Besides this distinction, the fingers of the hands are acuminated, as in the Bernhardi, and have calcareous tips, although the species are not right-handed; also, the 2d joint of the outer antennæ is complete on the upper side, and there is no moveable appendage or acicle (a name we give to the so-called palpus, in allusion to its form). With these distinctions, the group is entitled to the rank of a genus, which may be named *Diogenes*.

The remaining species of Paguri are similar, in having the fingers of the hands more or less spoon-shaped;—with no rostriform appendage to the ophthalmic segment between the eyes;—the outer antennæ bearing a moveable acicle;—the flagellum of the outer antennæ naked; the 2d joint of the base of the inner antennæ not reaching to extremity of eyes;—the feet of the 4th pair subcheliform with the scabrous area on the hand, lateral and broad.

The great majority of these have the tips of all the fingers corneous. But a few have these tips in the larger hand calcareous, besides being peculiarly smooth and neat in the appearance of the limbs, and naked, or nearly so, with the shell more calcareous than usual. They have the left hand much the larger; yet unlike those species with *corneous* tips to the fingers that are strongly left-handed, the front margin has a small salient point at middle. Of the species with calcareous tips to the fingers, I make the genus *Calcinus*. This genus includes the old species *P. tibicen*, *Gaimardii*, *elegans*, &c.

The remaining species, still the larger part of the whole family, constitute the genus Pagurus. The following is a synopsis of the subdivisions proposed.

FAM. I. PAGURIDÆ.

Antennæ internæ mediocres, articulo primo brevissimo. Maxillipedis palpus externi flagello multiarticulato instructus. Species aquaticæ vel littorales.

Subfam. I. Pagurinæ.—Abdomen asymmetricum.

I. Pedes 4ti subcheliformes. Abdomen ad basin duobus paribus appendicium infra non instructum. Antennarum externarum flagellum nudum vel nudiusculum.

1. *Annulum ophthalmicum non rostriferum. Antennæ internæ aciculo mobili instructæ.*

Gen. 1. Bernhardus, D.—Pedes antici depressi: digiti acuminati; manus dextra major, apicibus digitorum calcarea. Macula scabra manus 4tæ submarginalis, linearis.

Gen. 2. Pagurus, *Fabr.*—Manus anticæ sive depressæ sive compressæ; digiti plus minusve instar cochlearis excavati, apicibus cornei; manus sinistra sæpius major. Macula scabra manus 4tæ lateralis, lata. Frons medio sive truncatus sive acutus.

Gen. 2. Calcinus, D.—Manus compressæ, sinistra major, apicibus digitorum calcarea et instar cochlearis optime excavata. Frons medio acutus. Pedes læves, nudi vel nudiusculi.

Annulum ophthalmicum rostriferum. Antennæ externæ aciculo mobili non instructæ.

ı. 4. Diogenes, D.—Manus sinistra major. Digiti acuminati, apicibus calcarei.

Pedes 4ti vergiformes, tarso terminali. Abdomen ad basin 4 appendicibus infra instructum. Antennarum flagellum externarum plus minusve pilosum sæpe elongatè ciliatum.

ı. 5. Paguristes, D. - Antennæ internæ elongatæ, apice articuli 2di extremitatem oculorum fere attingente.

ıfam. II. CANCELLINÆ.—Abdomen symmetricum. Gen. Cancellus, Edw.

FAM. II. CENOBITIDÆ.

Antennæ internæ basi longissimæ, articulo primo oculis sæpe longiore et valde lexo. Maxillipedis palpus externi flagello non instructus. Species subterriales.

Gen. 1. Cenobita, *Edw.*—Corpus angustum, carapace parce elongato, fronte non rostrato. Abdomen in cochleam retortum, superficie plerumque carnosum.

Gen. 2. Birgus, *Leach.*—Corpus latum, carapace parce oblongo, postice latissimo, fronte triangulato. Abdomen directum, inflexum, laminis crustaceis quoad dorsum plerumque tectum.

Specierum Paguridearum adhuc ineditarum Descriptiones.

GENUS BERNHARDUS.

Bernhardus Novi-Zealandiæ.—Oculorum pedunculi margine carapacis antico breviores, basi antennarum externarum longiores, aciculo hirsuto multo giores; cornea non obliqua, perbrevis; squama basalis paulo angusta, apice iso-denticulata. Pedes antici valde inæqui, fere nudi; carpo versus apicem lo pubescens, granulato-spinuloso; manu grandi, oblongâ, parce longiore non ore quam carpus, superficie externâ sex-seriatim tuberculatâ (marginibus lusis) inter has series fere lævi, digito mobili carinato, crenulato, et superficie seriatim tuberculato, etiam tuberculis minoribus instructo. Pedes 4 sequentes rginibus dense hirsuti, vix spinulosi.
Long. 1½—2″. *Hab.* in portu "Bay of Islands" Novi-Zelandiæ.

Bernhardus tenuimanus.—Frons medio subacutus. Carapax nudus. Oculorum unculi breves, basi antennarum externarum paulo breviores, aciculo subulato nudo vix breviores; cornea non obliqua, brevis; squama basalis angusta, ta. Pedes toti nudi, antici valde inæqui, granulati, granulis vix seriatis, carpi rgine superiore denticulato, manu grandi tenuissimè compressâ, parce oblonga, lto latiore quam carpus, margine superiore tenuiter cristato et denticulato, riore tenui; manu minore carpoque angustissimè oblongis. Pedes 4 sequentes raliter læves, margine superno subspinulosi.
ong. 1—1½″. *Hab.* in freto "Puget" Oregonensi.

Bernhardus armatus.—Carapax subnudus. Oculorum pedunculi margine carapacis antico breviores, sive basi sive aciculo subulato subnudo antennarum externarum multo breviores; cornea obliqua, dimidii pedunculi longitudine; squama basalis subovata, apiculata. Frons marginatus, medio paulo saliens, obtusus. Pedes toti fere nudi (junioribus exceptis pubescentioribus); antici valde inæqui, usque ad digitorum extremitatem tenuiter dense spinosi, spinis partim subseriatis, manu grandi latâ, oblongâ, multo longiore et parce latiore quam carpus; 4 sequentes supra spinulosi, tarsis infra paulo lateraliter uniseriatim spinulosis.

Long. 1¾″. *Hab.* in freto "Puget" Oregonensi.

Bernhardus hirsutiusculus.—Frons medio subacutus. Carapax brevis, sparsim pubescens, regione antico transverso. Oculorum pedunculi perbreves, basi antennarum externarum multo breviores, aciculo subnudo parce breviores; cornea vix obliqua; squama basalis ovata, non acuta. Pedes antici valde inæqui, angusti, carpo manuque pubescentes et granulato-scabri, margine superiore crassi, non spinulosi nec denticulati; manu oblongâ (duplo longiore quam latitudo) paulo breviore parce latiore quam carpus. Pedes 4 sequentes hirsutiusculi, non spinulosi, tarsis paulo compressis, infra subtiliter spinulosis.

Long. 1¼″. *Hab.* in freto "Puget" Oregonensi.

Bernhardus pubescens.—*B. hirsutiusculo* affinis. Frons medio subacutus. Carapax longior, fere nudus, regione antico non transverso. Oculorum pedunculi longi, margine carapacis antico non breviores, basi antennarum externarum parce longiores, aciculo multo longiores; cornea non obliqua; squama basalis subovata, apice rotundata. Pedes antici valde inæqui, angusti, carpo manuque pubescentes, scabriculi, non sparsim granulosi, carpo ad marginem superiorem minute spinuloso manu oblongâ (duplo longiore quam latitudo) paulo breviore parce latiore quam carpus. Pedes 4 sequentes pubescentes, non spinulosi.

Long. 1″. Hab. ? Conchæ quas habitant oris Americæ septentrionalis inveniuntur.

GENUS PAGURUS.

1. *Frons medio truncatus. Squama oculorum basalis lata.*

Pagurus fabimanus.—Frons medio fere rectus. Carapax plerumque nudus regione antico parce transverso. Oculi longiusculi, basi antennarum longiores; squama basalis lata, inverso-triangulata. Pedes antici valde inæqui, manu majore oblongâ, marginibus fere parallelis et subacutis, superiore spinuloso, inferiore crenulato aut subintegro, superficie externâ bene convexâ, tomentosâ, scabriculâ, digito mobili superne fere ad apicem minute spinuloso. Pedes 4 sequentes leviter hirsuti, tarsis prælongis, tarso pedis sinistri tertii subtriquetro, superficie hujus articuli præcedentisque externâ aut planâ aut subconcavâ, tomentosâ, margine superiore non spinuloso.

Long. 1⅛″. *Hab.* ad oras insulæ "Mindanao" Indiæ orientalis.

Pagurus scabrimanus.—*P. fabimano* fermè affinis, formâ carapacis, manus squamæque oculorum basalis similis. Oculi parce breviores, basi antennarum externarum longiores, internarum non longiores. Manus major extus non tomentosa, nudiuscula, scabricula, supra spinulosa, infra denticulata aut crenulata, digito mobili supra vix spinuloso, carpo supra extusque prope apicem spinuloso. Pedes

4 sequentes leviter hirsuti, tarsis prælongis, tarso pedis sinistri 3tii non subtriquetro, superficie externâ nec planâ, nec tomentosâ, margine superiore minute spinuloso.

Long. 1—1¼″. *Hab.* ad oras insulæ " Mindanao."

2. Frons medio subacutus. Squama oculorum basalis sæpius angusta.

Pagurus æquabilis.—*P. lineato* ferme affinis, manibus æquis, hirsutis, breviter spinulosis, formâ frontis oculique simili. Pedes 2di 3tiique parce hirsutiusculi, superficie externâ nudâ, articulis latioribus, fere lævibus, punctulatis, tarsis brevibus; pedibus paris 3tii inæquis, articulo sinistro penultimo extus planiusculo et superne subacuto. Pedes colore non lineati.

Long. ¾″. Hab. ad insulas "Madeira," et "St. Jago" archipelagi "Cape Verde."

Pagurus zebra.—*P. æquabili* fronte manibus hirsutis subæquis depressis oculisque similis. Oculi margine carapacis antico non breviores, basin antennarum externarum longitudine æquantes, aciculo duplo longiores. Pedes antici parvi, dextro paulo majore, manu duplo longiore quam latitudo, crasse granulatâ aut minute tuberculatâ, hirsutâ, carpo non depresso, dextro parce tuberculato. Pedes 2di 3tii leviter hirsuti, colore pauci-lineati, subtiliter sparsim granulati, tarsis brevibus, articulo penultimo pedis sinistri paris 3tii supra non spinuloso.

Long. ¾″. Hab ad insulas "Sandwich."

Pagurus globoso-manus.—P. *æquabili* manibus subæquis, digitis, formâ frontis affinis. Frons medio latius acutus. Oculi margine antico carapacis parce longiores, basi antennarum externarum vix longiores. Pedes antici breves, manu globulosâ, non duplo longiore quam latitudo, supra infraque minute tuberculato-spinosâ, breviter hirsutâ. Pedes sequentes fere nudi, articulo 3tio subtiliter verrucoso, penultimo pedis sinistri paris 3tii extus plano et hirsuto, paris 2di nudo, paucis spinulis minutis armato. Pedes colore non lineati.

Long. 1¼″. *Hab.* ad insulas " Viti."

Pagurus humilis.—*P. æquabili* fronte manibus parvis subæquis affinis. Oculi breviores, crassiusculi, fronte non longiores; squamâ basali triangulatâ. Pedes primi parvi, manu dextrâ parce majore, pubescente, oblongâ, paulo compressâ, margine superno rotundato. Pedes 4 sequentes crassiusculi, subteretes, sparsim pubescentes, tarso tenui, terete, breviore quam articulus penultimus. Pedes colore non lineati.

Long. 1″. *Hab.* ad insulas "Viti" et "Tongatabu."

GENUS PAGURISTES.

Paguristes longirostris.—Rostrum anguste elongatum, acutum, integrum, carapacis regio antica subcordata, fere nuda. Oculi graciles, margine carapacis antico longiores, vel basi vel aciculo antennarum externarum vel basi internarum multo longiores; squamâ basali medio acutâ. Flagellum antennarum externarum nudiusculum. Pedes antici æqui, manu carpoque depressis, latis, bene areolatis, non scabriculis, manu infra partim villosâ. Pedes 4 sequentes intus areolati supra hirsuti, extus fere læves et nudi.

Long. 1¼″. *Hab.* in mari Indiæ orientalis.

PAGURISTES HIRTUS.—Rostrum brevissimum. Carapax plerumque hirtus. Oculi graciles margine carapacis antico non breviores, basi vel aciculo antennarum externarum multo longiores, basi internarum breviores, squamâ basali valde elongatâ, angustâ, margine externo arcuato et tenuiter bene denticulato. Flagellum antennarum externarum infra elongate ciliatum. Pedes 2di 3tii hirti crassiusculi.

Long. 2″. *Hab.* in mari Sinensi.

GENUS CENOBITA.

CENOBITA CARNESCENS.—Regio carapacis antica plana, scabricula, lateribus quoque plana. Oculi fronte longiores, plus duplo longiores quam altitudo, valde compressi, squamâ basali triangulatâ, acutâ. Pedes antici inæqui, sinistro majore, superficiem granuloso, carpo paulo breviore quam manus, brachio apicem oblique plano-truncato. Pedes quatuor sequentes fere nudi, parce pubescentes, articulo ultimo scabriculo.

Long. 1¼—1½″. *Hab.* in archipelago "Paumotu."

CENOBITA BRUNNEA.—Regio carapacis convexa, nuda. Oculi fronte paulo breviores. Pedes antici validi, paulo inæqui, manu carpoque hirsutis, manu spinulis minutis sparsis scabriculâ, brachio apicem rotundato. Pedes 4 sequentes hirsuti, articulo ultimo subterete, longiore quam penultimus.

Long. 3″. *Hab.* ad insulam "Upolu" Samoensem. Abdomen nuce myristico sæpe tectum.

The Committee to which was referred Dr. J. C. Fisher's description of a new species of Cicada, with Mr. Cassin's Notes on the same and on C. septendecim, reported in favor of publication in the Proceedings.

On a new species of Cicada.

BY J. C. FISHER, M. D.

In the course of the observations made by the Committee of this Academy, to which was assigned the duty of investigating the habits and history of the seventeen year Locust, Cicada septendecim, which appeared during the present year (1851) in the neighborhood of Philadelphia, the attention of its members was directed by Mr. John Cassin to the fact, that two species had been confounded, and that the insect regarded as the smaller variety was in fact a distinct species, a conclusion at which he had arrived during their previous appearance in 1834. It is much smaller, is blacker in color, especially on the lower surface of the abdomen, where also the segments are bordered more narrowly with yellow, and has a note *entirely different* from that of the larger Cicada septendecim, Linn. Syst. Nat. i. pt. ii. p. 708, (1767.)

The two species did not associate together, but were found mostly on separate trees, the smaller being the less abundant.

I propose on these grounds to characterize the smaller species as follows:

Cicada Cassinii, nobis. ♂ total length of body 9-10ths of an inch, of the wings 1 2-10ths inches; ♀ frequently smaller.

Colors and general appearance much like those of Cicada septendecim, Linn.,

but darker, and the segments of the abdomen below are more narrowly bordered with yellow. Note different from that of C. septendecim, and more like that of some of the grasshoppers. Inhabits the neighborhood of Philadelphia, appearing in the winged or perfect state at intervals of seventeen years.

Note on the above species of CICADA, *and on the* CICADA SEPTENDECIM, *Linn.*

BY JOHN CASSIN.

There are two distinct and easily recognized species of Cicada which appear at intervals of seventeen years, and both of which were observed in this neighborhood, especially in the woods at Powelton, during the present year. I saw them in Delaware county, Pennsylvania, in 1834, and their entire specific distinctness I have insisted on through good and evil report for the last seventeen years.

It was, therefore, highly gratifying to me to have an opportunity of calling the attention of the gentlemen of this Academy to the smaller species which Professor Fisher has done me the honor of naming as above, and particularly to its note. This is quite different from the prolonged and loud scream of the larger species, (which is *C. septendecim*, Linn.) and begins with an introductory *clip, clip*, quite peculiar. No disposition to associate with each other exists between the two species, and although I have seen both on the same tree, yet most frequently they were entirely separated, and occupied different parts of the woods. In 1834, I observed the smaller species in localities which were somewhat favorably situated for moisture, but during the present year it occurred in localities as varied as those of the other and larger species. At Powelton it was very abundant in an orchard of apple trees on the most elevated part of the estate, and also on trees in the adjacent woods.

That the smaller species preferred low grounds was the observation of Dr. Hildreth, of Marietta, Ohio, who, in an article on the *Cicada septendecim*, in Silliman's Journal, xviii. p. 47, (1830) has the following paragraph:—"There appeared to be two varieties of the Cicada, one smaller than the other; there was also a striking difference in their notes. The smaller variety was more common in the bottom lands and the larger in the hills."

The size and the peculiar note are the most striking characters of the smaller species, otherwise it much resembles the larger. The consideration of its claims to specific distinction involves the general problem of specific character, which is difficult in theory, but practically is readily solved. An animal which constantly perpetuates its kind, or in other words reproduces itself either exactly or within a demonstrable range of variation, is a species. These two *Cicadæ* do not associate together as varieties commonly do. Of the very numerous instances in which the phenomenon introductory to propagation has been observed this year, in the course of the particular attention paid to these insects by gentlemen of this Academy, not one case occurred in which the male and female of the two insects were seen together. They are distinct species.

The appearance of the *Cicada septendecim* in various localities at different periods, each terminating intervals of seventeen years, for instance in Ohio in 1846 and in Eastern Pennsylvania in 1851, is a matter of remarkable interest. Many independent ranges or provinces are known to exist in the United States, and they are now ascertained to be so numerous that this species probably appears in some part of the country every year. Assuming all that part of North America in which it has ever been observed to be its zoological province, how are the sub-provinces and different times of appearance to be accounted for? Are all those sub-provinces to be regarded as the theatres of independent creations? Do the facts demonstrate that the same species may exist in provinces which may be presumed to have had different eras of origin?

It would be a curious fact, and one of important application, that exactly the same species can inhabit provinces having independent creations, and if, too, as in the case of this insect, it should be clearly impossible for it to have extended from one province to another.

Or, can it be possible that every distinct district in which the *Cicadæ* appear is really an entomological province, and that entomological provinces in this part of North America are quite restricted in extent, as has been observed by Dr. LeConte in California? (Communicated by that gentlemen to the American Association for the advancement of Science at its meeting in August, 1851.)

Those sub-provinces may have relations to geologic changes. Having the extraordinary characteristic necessity of remaining in the earth for seventeen years, as a fact in the history of this insect, may it be possible to infer that geologic changes have effected the difference in the times of its appearance, or that so short periods as fractions of seventeen years have been of geologic importance throughout the range of the Cicadæ?

The *Cicada septendecim* has appeared in the vicinity of Philadelphia, at intervals of seventeen years, certainly since 1715. There has been, it appears, no variation of temperature, nor causes accidental nor other since that date sufficient to affect its habits in any perceptible degree. It is stated in Clay's Swedish Annals, to have appeared in May, 1715, in this neighborhood, (which, so far as I know, is the earliest authentic record;) punctually in the same month, every seventeenth year, now certainly for nearly one hundred and fifty years, has this extraordinary insect been known to make its visit. No causes have affected it during that period, not even so far as relates to the month in which it appears.

Passing, I would observe that so far as relates to the neighborhood of Philadelphia, the *Cicada septendecim* clearly had not a fair start with the year 1,—anno mundi of the commonly received chronology. If it had had, the sum produced by 1851+4004—1 ought to divide by 17 without a remainder, which it will not do,—more insignificant facts than which have troubled schoolmen.

I have never seen any animals more entirely stupid than the seventeen year Locusts. They make no effort to escape, but allow themselves to be captured with perfect passiveness, thus reminding one of the tameness of animals in countries where they are not molested by enemies. All animals of as high grade of organization as these insects, acquire instincts from impressions made by the presence of danger and otherwise, which they transmit to their offspring. The young Fox of to-day is undoubtedly superior to his juvenile progenitor of a century since. The *cicadæ* have acquired no such instinct. Their short life of maturity above the surface of the earth, does not appear to be of sufficient duration for such to be formed and impressed on their posterity.

In short, it appears to me that the study of these insects, and the examination of their separate ranges, might result in conclusions of extraordinary importance, especially relative to modern views of the distribution of animals. No animal is more easily traced. In other aspects, too, they present interesting points for study, perhaps of general interest in zoological science.

Dr. Zantzinger offered the following, which was adopted,

Resolved, That a member of the Society be appointed to prepare a new and extended "Notice of the Academy," to be read before the Society, and designed for publication.

The Chairman on motion being authorized to make the appointment, selected Dr. Ruschenberger, who accepted the same.

ELECTION.

The Rev. Lorenzo L. Longstreth, of Philadelphia, was elected a *Member* of the Academy.

October 7th.

Vice President Bridges in the Chair.

Dr. Leidy read a paper intended for publication in the Proceedings, entitled "Corrections and Additions to former papers on Helminthology published in the Proceedings of the Academy of Natural Sciences of Philadelphia," which was referred to Dr. Zantzinger, Dr. Fisher, and Dr. Watson.

A letter was read from the Secretary of the Geological Society of London, dated May 1st, 1851, acknowledging the receipt of recent numbers of the Proceedings.

Dr. Leidy remarked, the members probably recollected that a few evenings since he had mentioned, that it had been asserted by numerous and good authorities, that Gordii had been observed within the body of insects. He now exhibited a specimen of a Gordius and a grasshopper, preserved in a bottle of alcohol, which had been sent to him by his friend Dr. Budd, of Pemberton, New Jersey. The Gordius, Dr. Budd stated, was seen to come out of the body of the grasshopper, and in a half an hour afterwards died. It is a different species from those described a short time since. It is a female, about six inches long, by half a line in length, rigid, strongly marked by transverse wrinkles, and annuli, with the caudal extremity somewhat compressed and obtuse. To the species he gave the name Gordius robustus.

He also exhibited a species of Mermis from Brazil, belonging to the collection of the Academy. It is fourteen and a half inches long, and of a reddish brown color. To it he gave the name Mermis ferruginea.

October 14th.

Vice President Bridges in the Chair.

Mr. Cassin read a paper entitled "Catalogue of the Caprimulgidæ in the collection of the Academy of Natural Sciences of Philadelphia," which was referred to Dr. Wilson, Col. G. A. McCall, and Dr. Watson.

Mr. Charles Girard read a paper entitled "Historical Sketch of the Gordiaciæ," which, being intended for publication, was referred to a Committeee consisting of Dr. Leidy, Dr. Hallowell, and Dr. Horner.

Dr. Fisher read a note from Dr. C. D. Meigs, announcing that he was now prepared to read before the Society his biographical Memoir of the late Dr. Morton.

Professor Horner narrated a case illustrating the extreme lethargy produced by the action of Carbonic acid gas on the human system. The individual, while engaged in burning lime, had fallen asleep during the night upon the edge of the kiln, and had been exposed to the action of this gas for many successive hours. A great part of the right fore arm, arm, scapula, and back had been severely burned, without the knowledge of the patient, until he was extricated by persons passing next morning.

Dr. Leidy presented for the inspection of the members a mutilated cranium of an extinct mammal, formerly characterized by him under the name of Oreodon robustum.[*] It was one of five specimens of crania of the same species lately received through Professor Baird from the Smithsonian Institute. When first obtained, one side was completely enveloped within a matrix, upon the removal of which the complete dentition of the animal was disclosed. The teeth form a continuous arch as in Anoplotherium. The formula is m. $\frac{3}{3}$, p. m. $\frac{4}{3}$, c. $\frac{1}{1}$, i. $\frac{1}{4}$ upon each side.

Dr. L. also exhibited three inferior molars of the Rhinoceros occidentalis,[†] of which the posterior measured seventeen lines antero-posteriorly, and ten lines transversely; the others about fourteen lines antero-posteriorly, and ten lines transversely.

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Dr. Fisher offered the following, which was adopted.

Resolved, That an invitation be sent by the Secretary, through the Dean of each of the four Medical Colleges, of this city, to the students attending lectures at the respective institutions, to visit the Museum of the Academy on Tuesdays and Fridays, (public days,) and to inform them that they will be admitted upon exhibiting their matriculation tickets.

Mr. Vaux offered the following, which was also adopted.

Resolved, That the Committee appointed at a meeting of the Academy, held May 16th, 1851, to select a Biographer of the late Dr. Morton, be requested to obtain a suitable place for hearing the Memoir by Dr. Meigs, and to make such other arrangements as may be requisite.

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[*] Proc. Ac. Nat. Sci., 5, 238.

[†] Ibid, 119.

October 21st.

Vice-President **Bridges** in the Chair.

Mr. Lea read a paper on the genus *Acostæa* of D'Orbigny, a new fresh water mollusc of the order *Dimyaria*, from the river Guadua, New Granada.

Mr. Lea considers this shell as one of the most remarkable and interesting which has ever come under his notice. The fact that it is in its young state a free *bimusculose* shell, and in its mature state an affixed *unimusculose* shell, places it among the anomalies which zoologists find it difficult to understand, but which, in this case, points out its true position in a natural arrangement. Mr. Lea expressed his convictions that this shell, now so well described by M. D'Orbigny, belonged to the same genus which Ferussac described in 1823, in the Mem. of the Soc. Nat. Hist., Vol. 1, under the name of *Mulleria*, if it be not of the same species, a single specimen (adult) of which had then only been seen. Ferussac, considering the general resemblance of *Mulleria* to *Ostrea*, thought it ought to be put alongside of, if not in, the latter genus. Brongniart and Latreille thought it ought to go between *Spondylus* and *Arca*. Other authors had assigned it to various positions, while some doubted whether it was anything more than a malformation. The perfect specimen, in its junior and adult state, if it be *Mulleria*, now banish all difficulties. Mr. Lea thinks now, in placing *Mulleria* (Acostæa) in its true position, at the head of the order *Monomyaria*, where it makes the link with *Dimyaria*, it forms an easy transition from the first to the second order. Thus retaining the trace of one while it passes so curiously into the other. *Nihil per saltum.*

Mr. Lea, under the impression that D'Orbigny's *Acostæa Guaduasana* may prove to be a distinct species from the shell described by Ferussac, under the generic name of *Mulleria*, while it may belong to the same genus, proposes to give the name of that distinguished zoologist to it. That of *Guaduasana* should be retained of course for D'Orbigny's species. The genus would then represent *Mulleria Ferussacii*, and *Mulleria Guaduasana*.

The paper being intended for publication in the Journal, was referred to Dr. Leidy, Dr. Ruschenberger, and Dr. Wilson.

Dr. Fisher, on behalf of the Committee on the Memoir of Dr. Morton, reported that they had selected the Hall of the University of Pennsylvania, and had appointed the first Thursday in November as the time for hearing the Memoir read by Dr. Meigs, provided the consent of the Trustees of the University could be had, notice of which would be given.

On motion of Dr. Leidy, it was

Resolved, That persons, not members of the Academy, who may contribute to the Museum or Library specimens of Natural History or Books, deemed of sufficient value by the Curators or Librarian, be entitled to a ticket of admission to the Museum on public days, for a period of six months.

Dr. Leidy exhibited three broken teeth, consisting of the body of a canine and that of two posterior molars, which, he observed, were fossils from Nebraska Territory, and belonged to an animal closely allied to the genus Ursus. The tubercles upon the crown of the molars are more elevated and conoidal than in the recent bears, and the crown of the canine is relatively more robust. He proposed for the animal the name of Arctodon.

Dr. L. stated that he was preparing a memoir, in which would be described in detail all the fossil remains of Mammalia from Nebraska Territory, heretofore characterized by him in the Proceedings.

He next presented for examination a species of fresh-water sponge found growing in the Delaware and Schuylkill rivers, in the vicinity of Philadelphia, which he characterized as follows:

Spongilla fragilis.—Discoidal, lichenoid, growing in patches, flat, oval or circular, lobate at the margin, translucent, yellowish-white or cream-colored. Areolæ distinct, subcircular. Reproductive bodies arranged in a single close layer at the base of attachment of the sponge, shining, whitish-yellow, elevated into a central papilla upon the upper surface.

Measurements.—From ½ to 2 inches in diameter by 1 to 1½ lines in thickness at the centre and gradually thinning off to the margin.

Habitation.—Grows upon the under side of stones below low water mark in the Rivers Delaware and Schuylkill.

Structure.—Composed of an intertexture of spiculæ about 1-400th of an inch long, having a minutely tuberculated surface, over which is reflected a granulo-cellular membrane.

Remarks.—After the death of the sponge, the areolated tissue macerates off, leaving the reproductive bodies in a close layer attached to the rock. The living sponge is never green, nor does it ever grow exposed to the light.

Dr. L. further stated that another species of fresh-water sponge is not uncommon in our rivers, which grows exposed to the light, and is green in color like the European Spongilla fluviatilis, but whether it is specifically distinct from the latter, he has not yet ascertained.

October 28th.

Vice-President Wetherill in the Chair.

The Committee to which was referred Mr. Lea's paper on the genus Acostæa, of D'Orbigny, reported in favor of publication in the Journal.

The Committee to which was referred Mr. Cassin's "Catalogue of the Caprimulgidæ in the Collection of the Academy of Natural Sciences of Philadelphia," reported in favour of publication. [☞*For this paper see the end of the present number.*]

The Committee to which was referred the following paper of Mr. C. Girard, reported in favor of publication in the Proceedings.

Historical Sketch of Gordiaceæ.

By Charles Girard.

I.

There are groups, amongst the invertebrates of the animal kingdom, whose natural history has made but little progress, although known to science for more than half a century.

The animals of which they are composed being generally of a diminutive size, modest in form, modest in colors, have been looked at with indifference, thought unworthy of a careful investigation, and deemed of too small an importance in a general system of classification.

Every living being, however, is entitled to occupy a rank in the creation; every one has its place, its aim, and its design.

Yet some are called enigmatic, paradoxical, doubtful,—as if to the Creator's mind, any thing or any being could be either an enigma, a paradox, or a doubt. Such groups, we must acknowledge, present great difficulties to investigators: but let investigators be patient and laborious, and they will gradually sweep away the enigmas, the paradoxes, and the doubts.

When the researches on a group are slow, and embrace a long period, then it becomes necessary, for the safe and future advancement of its natural history, to recapitulate all the data in their chronology. These data will become a guide into the various desiderata for new observations.

Most diverse opinions are still entertained concerning Gordiaceæ, and important zoological questions are still waiting the results of further investigations.

Are Gordiaceæ indigenous in America, or introduced from abroad? If they are indigenous amongst us, are they identical with, or specifically different from, the European species?

Here commences, a labor of comparison between the internal structure and external appearance of specimens from both countries. Besides, specimens from all the localities of one country should be compared, in order to ascertain the number of species. Their embryology and metamorphosis must be traced; their habits recorded, in order to enable us to assign a natural position to that family in the class of worms.

If they are introduced on this continent, how, where, and how long since, did that event take place? What is their geographical distribution and progressive migration to the places where they are now found?

Some facts, which we already possess, and which are related hereafter, rather enforce the belief of their aboriginal nature, than that of their introduction. Even in the case of an identity between the American and European Gordiaceæ, these worms still deserve special attention from American anatomists, as the latter might be successful in elucidating the controverted anatomical questions which divide the naturalists of the old world.

II.

The genus *Gordius* was established by O. F. Müller during the last century.[*] Under that name were included aquatic worms, others living in moist grounds, and still others, more numerous, found as parasites in the body of other animals. Those which lead a permanent parasitical life, constitute now the genus *Filaria*, of the same author,[*] which has been admitted by all subsequent naturalists, and more than forty species of these are described by Rudolphi.[†] But there has been a general belief, that the only difference between Gordius and Filaria consisted in their habits, no zoological characters having as yet been detected.

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[*] Vermium terrestrium et fluviatilium historia, 1773.

Lamarck[‡] even says, that the species of Gordius were probably Filariæ; and if he has kept those two genera, it was merely in accordance with a prevailing practice.

Cuvier[||] places Gordii at the end of the annelids, thus made to follow the leeches, remarking, however, that they might perhaps come nearer the intestinal worms. He was unacquainted with the fact, since ascertained, that several species of true Gordius may be found, at a certain season of the year, within the body of other animals.

The genus Filaria is placed, by the same author, at the head of intestinal worms. Its characters are derived from the external appearance, which, however, he (Cuvier) acknowledges, resembles closely that of Gordius.

Should a generic difference hereafter be found between Gordius and Filaria, in their anatomical structure, and we think it very likely to be the case, besides the difference of embryonic development which already distinguishes them, we shall have that peculiarity in their habits which makes Filaria to occur in such cavities of the body of other animals having no communication with the exterior, whilst Gordii, when occasionally found within other animals, occur in the intestinal canal; that is to say, in a cavity which communicates directly with the surrounding medium. This fact is of no small importance.

The letter of Mr. Jacobson, to de Blainville,[§] relates to Filaria, and not to Gordius, as its title would lead any one to believe.

Mr. Charvet,[¶] in describing two species of true Gordius, thinks that these worms are indifferently external and internal, and that the distinction made between Filaria and Gordius becomes thus insignificant. But he is inclined to believe that, if it can be proved that Filariæ have a mouth provided with a sucking apparatus, the character would be generic. He was not prepared, by direct observations, to decide upon this fact.

Leon Dufour[**] alludes to Gordii, and rejects the idea of an identity between them and Filariæ, considering the first as true Annelids, and the second as true Entozoa; there existing, he says, a mere external resemblance, which can only be proved to depend on identity of structure by anatomical investigations.

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[*] *O. F. Müller*, in Naturforscher. Vol. xxii., 1787.

[†] Entozoorum sive vermium intestinalium Historia Naturalis. (3 vol. 8vo., 1808—1811), Vol. ii. p. 55 et seq.

[‡] Histoire naturelle des Animaux sans vertèbres. Vol. iii., 1809, p. 670.

[||] Le Règne Animal distribué d'après son organisation, vol. iv., 1817, and 2d ed. vol. iii., 1829.

[§] Extrait d'une lettre adressée à Mr. de Blainville sur le dragonneau. Ann. Sc. Nat. 2de série i. 1831, p. 320.

[¶] Nouvelles Annales du Muséum d'histoire naturelle. Vol. iii. 1834, p. 37.

[**] Annales des Sciences Naturelles, 2de série, vol. vii., 1837, p. 7.

Prof. Siebold[*] speaks of Filariæ of various kinds of insects, resembling Gordii, which lived for some time in clear water, in which they had been placed. He afterwards discovered the fact[†] that sexes of Gordii were individualised, and males more numerous than females; and, withdrawing Gordii from Entozoa, he places them actually among Annelids. Subsequently[‡] he makes of Gordii a separate family, including also, the genus *Mermis* of Dujardin; the family he calls GORDIACEÆ, differing chiefly from that of *Nematoidea* in its embryonic development.

Entozoa have that peculiar mode of generation, in which several broods follow each other, without resembling each other; nor will they resemble their parent stock before the third, fourth, or fifth generation, according to the species.

The young Gordiaceæ resemble their parents as soon as hatched. There is, however, not yet a single species of that family whose eggs have been made the subject of a careful and complete study. Isolated facts only are known, and to these we shall devote a few lines further on.

There is a phenomenon, with which the naturalists of the old world are well acquainted, which takes place during the existence of Gordiaceæ, (in Mermis as well as in Gordius), it is the fact that they pass one part of their life within the body of other animals,—of Grasshoppers and Crickets, for example. They are found in the clear running waters of the meadows and fountains, early in the spring and summer; they enter the body of grasshoppers in the fall, where they deposit their eggs. These insects die, and their bodies afford to these eggs a convenient shelter during the winter, when the next spring they will hatch, and become free again.[||] Eggs, however, are sometimes found without any such nidus; whether naturally or accidentally, remains to be ascertained.

A. S. Œrsted[§] agrees with Prof. Siebold in making of Gordiaceæ a separate group amongst Nematoidea, on the ground of their embryonic development.

Mr. Dujardin[¶] is remarkably short, and adds nothing to our knowledge on these worms, which he still calls enigmatic.

The manner in which Mr. Emile Blanchard[**] has illustrated the anatomical structure of the other families of the intestinal worms, would lead us to expect from that observer, more precise facts respecting Gordiaceæ, than those we had before. But the author, at the outset, tells us that he was unable to fulfil the task he had undertaken, that is, a complete history of that family. The want of materials in such researches, added to the difficulty of experimenting, are the reasons advanced to account for the deficiency in this part of his investigations. The subject, therefore, stands precisely as it did before Mr. Blanchard undertook his anatomical researches on the class of worms.

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[*] *Wiegman's* Archiv für Naturgeschichte, 1837, ii., p. 254.

[†] *Wiegman's* Archiv, &c., 1838, ii. p. 292, (*on the progress of Helminthology*); and 1838, i., p. 302, (*Helminthologische Beiträge*).

[‡] In *Germar's* Entomologische Zeitung, 1842.

[||] *Wiegman's* Archiv, &c., 1843, ii., pp. 302 and 307.

[§] Entwurf einer systematischen Eintheilung und speciellen Beschreibung der Plattwürmer, &c., 1844, pp. 28, 35.

[¶] Histoire Naturelle des Helminthes ou vers Intestinaux. Paris, 1845, 8vo.

[**] Recherches sur l'organisation des vers. *Gordiaceæ.* Annales des Sciences Naturelles, 3d ser. Vol. xii., 1839, p. 5.

The last European writer on this subject is Mr. Ed. Grube,* who has made some observations on the development of the eggs of *Gordius aquaticus*, and described a new species from Africa. His paper bears chiefly on minute parasitical nematoids. He also alludes to the great resemblance there is between *Mermis albicans* and *Ascaris acuminata*.

III.

The anatomical structure of Gordiaceæ is also a matter of much controversy amongst anatomists.

Prof Siebold,† in giving an account of the difference between intestinal worms and Gordii, again calls the latter enigmatic.

Berthold‡ describes a system of circulation, neither seen nor acknowledged by the authors that came after him. He likewise mentions a nervous system; but giving no further account of it, its characters and distribution in the body of these worms remain to be investigated.

Dujardin‖ is in a complete doubt.

Prof. Siebold,§ in resuming Berthold's and Dujardin's investigation, says that the organs which Berthold took for veins and arteries, are contracted fibres, and that he has failed of seeing any organs which he could confidently call nervous or vascular systems.

We do not know yet the digestive tube of any Gordiaceæ. One fact, however, is ascertained with regard to that organ: it atrophies in full grown individuals. Even the structure of the skin, or external envelope of the body, deserves a more full comparative study.

Although Charvet and Berthold agree in saying that Gordiaceæ are androgynous, it has been plainly ascertained since, that the sexes are distinct. But the structure of the sexual organs is not known. Prof. Siebold found an external character by which males differ from the females, the former, in *G. aquaticus*, having a bifurcated tail.

IV.

Some observations on the development of the eggs of *Gordius aquaticus* have been made by Ed. Grube.¶ Dr. Joseph Leidy had made similar investigations in 1846, and published only in 1850.** The eggs are laid in strings, nearly of the length, and sometimes the color, of the worm itself. Within those whitish strings or cords are found the eggs. The division of the yolk takes place, according to the general law of division of that substance, previous to the formation of the embryo. The embryo itself is gradually formed out of the yolk's substance, in a manner similar to that in Clepsinæ, and leeches in general. The young resemble their parents as soon as hatched.

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* Über einigen Anguilulen und die Entwicklungs. von *Gordius aquaticus*. *Trosch.* Archiv für Naturgeschichte 1849, vol. i. p. 358. Pl. vii.

† *Wiegman's* Archiv, 1838, vol. iv., i. p. 302.

‡ Ueber das Bau das Wasserkalbs, 1842, in 12.

‖ Annales des Sciences Naturelles. 2de serie, vol. xviii., 1842, p. 142.

§ *Wiegman's* Archiv, 1843, ii. pp. 302 and 307.

¶ *Troschel* für Naturgeschichte, 1849, i. p. 358. Pl. vii.

** Notes on the development of *Gordius aquaticus*. Proc. Acad. Nat. Sci., Philad., 1850, p. 89.

Young Gordii possess two circles of filamentary appendages around the proboscis, which, at this early period, is alternately protruded and retracted. Whether the same motion, and the same appendages, are still present in the adult state, is yet to be examined. Many worms are known to be provided with a retractile proboscis, which they use in perforating the sand and mud in which they live. Gordii might require it to introduce themselves into the living bodies where they are sometimes found. As to the circles of tentacles, they very likely disappear in the adult, while the alimentary canal atrophies, their function being intimately connected with the functions of the latter organ.

V.

With regard to the species of Gordiaceæ to be admitted, naturalists do not any more agree.

The most common in Europe is *Gordius aquaticus*, L.[*] The *G. marinus* and *G. annulatus* of Montague,[†] are Nemerteæ.

Mr. Charvet[‡] describes two others, from the vicinity of Grenoble, (France,) under two trivial names.

Mr. Dujardin[‖] considers as distinct, from the above, a species from the vicinity of Toulouse, his *Gordius Tolosanus*, and describes another species, proposing for it the genus MERMIS, calling the species *M. nigrescens*.

Prof. Siebold[§] has made us acquainted with a second species of Mermis, his *M. albicans*.

Mr. Blanchard[¶] has described one species from Chili, under the name of *G. Chilensis*.

Finally, Mr. Ed. Grube[**] describes another from Africa, which he calls *Gordius crassus*.

Before we identify the North American Gordii with any of the above mentioned ones, we must be prepared to account for many objections which can be made, respecting their having been created identical over such an extensive area, or else of their having migrated naturally, or having been accidentally transported.

VI.

We have in the United States one species, which seems quite common in fresh water, and referred by some to *G. aquaticus*. Rev. Z. Thompson, of Burlington, (Vt.), expresses himself in the following terms: "The little animal called the *Hair snake* also belongs to this order, (annulata,) and to the genus Gordius.

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[*] Systema Naturæ ed. xii. 1767, p. 1075.

[†] Transactions of the Linnean Society of London, vii. 1804, p. 72 and 74.

[‡] Observations sur deux espèces du genre dragoneau qui habitent dans quelques eaux courantes aux environs de Grenobles. Nouv. Ann. du Mus. d'hist. Nat. iii. 1836, p. 37. Ann. Sc. Nat. 2de ser. ii. 1834, p. 123. *Wiegm.* Archiv i., i. 1835, p. 341.

[‖] Mémoire sur la structure anatomique des Gordius et d'une autre Helminthe qu'on a confondu avec lui. Ann. Sc. Nat. 2de ser. xviii., 1842, p. 129 and 146. Institut., 1842, p. 256. Archives gén. de Médec. xii., 1842, p. 155.

[§] Entomologische Zeitung, 1843, p. 80.

[¶] Historia fisica y politica de Chile, por Claudio Gay. Zoologia iii., 1848, p. 109.

[**] *Troschel* Archiv, &c., 1849, i., p. 370.

These are very common in the still waters, and mud, in all parts of the State. They are usually about the size of a large horse hair, and are from one to six or eight inches in length. In color they vary from pure white to nearly black, and hence we probably have several species. The vulgar notion that they originate from hairs which fall from horses and cattle, and become animated in the water, would seem to be too absurd for contradiction; and yet, absurd as it is, people are to be found who believe it."[*]

The same popular opinion is prevailing in Europe. Gordii have been noticed in the body of insects, also, by an American entomologist, Dr. Th. Wm. Harris, who says: "I have taken three or four of these animals out of the body of a single locust."[†] They have been found, by others, within the cricket, (*Acheta abbreviata*).

We saw a specimen, six or seven inches in length, caught in the clear waters in the vicinity of Richmond, (Va.) Several others were detected by Dr. Leidy in the neighborhood of Philadelphia.

Finally, we may mention several specimens of Gordii from Oregon, brought home by the U. S. Exploring Expedition.

Gordii, therefore, are spread all over the Western hemisphere.

The Committee on the following paper, by Dr. Leidy, reported in favor of its publication in the Proceedings.

Corrections and Additions to former Papers on Helminthology published in the Proceedings of the Academy. By JOSEPH LEIDY, M. D.

BODO, *Ehrenberg*.

1. BODO HELICIS, *Diesing:* Syst. Helm. i, 45.

Cryptobia Helicis, *Leidy:* Proc. A. N. S. iii, 101; An. and Mag. of Nat. Hist. xix, 209.

Cryptoicus Helicis, *Leidy:* Journ. A. N. S., new series i, 67.

VERTEX, *Hemprich et Ehrenberg*.

1. VERTEX MARGINATUS, *Diesing:* Syst. Helm. i, 229.

Prostoma marginatum, *Leidy:* Proc. A. N. S. iii, 251. Rarely more than 3-5ths line long. Abundant in ditches below the city of Philadelphia.

AORURUS, *Leidy:* Pr. A. N. S. iv, 230.

Characteribus reformatis. Body cylindroid, broadly and strongly annulated Tail long, spiculate, and inflexible. Mouth simple, round, unarmed. Female generative aperture posterior to the middle. Male with a single spiculate penis.

1. *Sub-genus.* STREPTOSTOMA, *Leidy:* Pr. A. N. S. iv, 230.

Characteribus reformatis. Annuli very broad, distinct, and few in number. Mouth large, circular; buccal organ (*œsophagus*) and gizzard pyriform. Tail very long, and ensiform.

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[*] Natural History of Vermont, 1842, 8vo., p. 170.

[†] Report on the Insects injurious to vegetation, 1842, p. 155.

1. Streptostoma agile, *Leidy:* Proc. A. N. S. iv, 230.

2. Streptostoma gracile, *Leidy:* Proc. A. N. S. v, 100.

Oxyuris Diesingii, *Hammerschmidt:* Isis von Oken, 1838, 354, Taf. iv, fig. vi.

Oxyuris Blattæ orientalis, *Hammerschmidt:* Naturwis. Abhandl. von Haidinger i, 284, Tab. x, Figs. 4, 7, 13—15.

2. *Sub-genus.* THELASTOMA, *Leidy.* Pr. A. N. S. iv, 231.

Characteribus reformatis. Annuli few in number, broad. Oral annulus papillaform. Mouth small, circular; buccal organ long, cylindrical; gizzard pyriform. Tail spiculate, moderately long.

1. Thelastoma attenuatum, *Leidy:* Proc. A. N. S., iv, 231.

2. Thelastoma appendiculatum, *Leidy:* Proc. A. N. S., v, 101.

Oxyuris Blattæ orientalis, *Hammerschmidt:* Naturw. Abhandl. von Haidinger i, 284, Tab. x, Figs. 10—12, (♂ 8, 9, 20 ?)

3. Thelastoma labiatum, *Leidy:* Pr. A. N. S. v, 101.

4. Thelastoma robustum, *Leidy:* Ib. v, 101.

5. Thelastoma brevicaudatum, *Leidy:* Ib. v, 208.

The larva of a lamellicorn insect, from which this species was obtained, Dr. J. L. Le Conte informs me, belongs to Scarabeus relictus.

6. Thelastoma gracile, *Leidy.*

Oxyuris gracilis, *Hammerschmidt:* Naturw. Abh. v. Haidinger i, 287, Tab. x, Figs. 21—25.

7. Thelastoma dilatatum, *Leidy.*

Oxyuris dilatata, *Hammerschmidt:* Ib. i, 287, Tab. x, 26, 27.

8. Thelastoma laticolle, *Leidy.*

Oxyuris laticollis, *Hammerschmidt:* Ib. i, 288, Tab. x, 28—34.

LUMBRICULUS, *Gruby.*

Acestus, *Leidy:* Pr. A. N. S. v, 226.

Characteribus reformatis. Body filiform, cylindroid, hyaline. Podal spines in 4 rows, in fasciculi of 2 to 5, furcate. Upper lip simple, conoidal. Girdle none. Eyes none. Blood bright red.

1. Lumbriculus spiralis, *Leidy.*

Acestus spiralis, *Leidy:* Pr. A. N. S. v, 226. Description from the young; found in the spring of the year.

Adult.—Body very long and delicate, filiform, cylindrical; posteriorly obtusely rounded. Upper lip compressed, conoidal. Annuli over 200. Podal spines in 4 rows, 3 to 5 anteriorly 2 to 3 posteriorly in each fasciculus, long sigmoid, furcate. Intervals of the viscera distended with globular corpuscles, which, shining through the translucent integument, give the annuli a deep greenish or bluish white opalescent appearance.

Length from 1 to 3 inches; breadth from 1-8th to 1-5th line. One of three inches in length had 276 annuli.

Habitation.—In the mud about the roots of Pontederia cordata, Sagitaria sagitifolia, and Arum virginicum, in ditches below Philadelphia. It is also often found coiled up in a remarkably close knot, among the outer decaying petioles of the leaves of the plants just mentioned. Months of August and September.

2. LUMBRICULUS HYALINUS, *Leidy*.

Acestus hyalinus, *Leidy:* Proc. A. N. S. v, 226. Description from the young in the Spring.

Adult. Body filiform, red in color, the posterior fifth yellowish, translucent. Upper lip sub-acute. Caudal annulus obtuse. Annuli from 120 to 180. Podal spines in fasciculi of from 3 to 8, furcate.

Whole length 2 inches, with usually 150 annuli; breadth anteriorly 1-5th line, posteriorly 1-6th line. One of 1 inch is about 1-6th line anteriorly, 1-8th of a line posteriorly.

Habitation. Found in ditches with the preceding, the anterior two-thirds of the body burried in the mud, with the tail rapidly vibrating like Saenuris or Strephuris. Months of August and September.

CHÆTODEMUS, *Genus novum*.

Body cylindroid. Upper lip very large and broad. Podal spines in 4 rows, fasciculate, aristate. Mouth large, inferior; pharynx capacious, œsophagus cylindrical; intestine capacious. Eyes none. Blood colorless. Increasing by segmentation.

1. CHÆTODEMUS PANDURATUS, *Leidy*.

Body transparent, colorless. Upper lip panduriform, broader than the body. Podal spines in fasciculi of 4, long sigmoid, aristate, divergent, 1-666th in. long, commencing with the oral segment. Pharynx oval; œsophagus narrow, cylindrical; intestine large, narrowing posteriorly.

Whole length of an individual of three segments 1 line; breadth 1-570th inch. Breadth of upper lip 1-500th inch. First segment of the body with 7 annuli; second with 5; the third with 9.

Habitation. Found in stagnant ponds and ditches.

Remark. Allied closely to Æolosoma.

STYLARIA, *Lamarck*.

1. STYLARIA PALUDOSA, *Lamarck*.

Nais proboscidea, Linn. Syst. Nat. 13th ed. vol. i, pt. 6, p. 3121.

Body cylindroid, colorless, transparent. Without segmentation from 15 to 20 annuli; one of two segments 40 annulations. Podal spines, 7 to 10 in each fasciculus, long sigmoid, hooked and bifid at the free end. Setæ commencing after the fifth annulus from the mouth, usually single, occasionally two, from 1-400th in. to 1-66th in. in length. Caudal annulus truncated, sinuous, fringed with short stiff hairs. Upper lip broad, emarginate, with a cylindroid, flexible, proboscidiform appendage from the 1-33d to the 1-25th in. long projecting from its notch, fringed with short, stiff hairs. Eyes two, transverse reniform, situated one on each side of the mouth. Mouth triangular; pharynx capacious, œsophagus cylindrical, terminating in the intestine at the third setous annulus.

Whole length from 2 to 4 lines; breadth 1-6th line.

Habitation. In ditches and ponds in the neighborhood of Philadelphia.

2. Stylaria fossularis, *Leidy.*

Body of two segments, composed of 21 annuli in the first, 22 to the last. Podal spines 5 to 7 in each fasciculus. Setæ commencing after the fifth annulus, usually double, to 1-66th in. long. Upper lip broad, demi-oval, compressed, not emarginate, with a cylindroid, flexible, proboscidiform appendage the 1-33d in. long projecting from its summit. Eyes two, transverse, one on each side of the mouth. Pharynx capacious, extending to the 4th annulus; œsophagus cylindroid, tortuous, extending to the 7th annulus.

Whole length 4½ lines; breadth 1-6th line.

Habitation. Found with the preceding.

ANELCODISCUS, *Genus novum.*

Body cylindroid, smooth, posteriorly terminated by a cordiform, retractile acetabular disk. Mouth and anus terminal. Intestine simple, straight.

1. Anelcodiscus pellucidus, *Leidy.*

Body cylindroid, colorless, transparent; anteriorly rounded, obtuse; posteriorly spreading into a cordiform disk for attachment. Disk retractile: when retracted, the body becoming dilated oval in the middle and the posterior part doubly intussuscepted.

Length 1-100th in.; breadth 1-1000th inch.

Habitation. Parasitic within the intestine of *Stylaria fossularis.*

Remarks. From the translucency of the last mentioned worm, its parasite may be seen within the intestine attached to the mucous membrane by means of its posterior cordiform disk. While attached it alternately retracts its body with a jerk, and then lengthens itself; in the former movement the posterior third of the body becoming doubly intussuscepted, so as to have the appearance of a double articulation. When detached the same movements take place, but in that of retraction the cordiform disk is entirely drawn within the animal's body. More details of this curious parasite I did not obtain, for, although I saw three, and removed them from the intestine of the Stylaria, yet their movements were so active I could not study them to advantage, and to quiet them I tried a minute portion of the vapour of chloroform, which instantly killed them, but at the same moment they underwent total destruction. Since then I have not been able to examine others.

GREGARINA, *Dufour.*

1. Gregarina Scarabæi relicti, *Leidy.*

Gregarina, *Leidy:* Pr. A. N. S. v, 208. Found in the larva of Scarabeus relictus.

EMEA, *Leidy:* Pr. A. N. S. v, 125.

Characteribus reformatis. Body linear, compressed. Head continuous with the body, with two lenticular depressions upon each side. Mouth infero-terminal. Œsophagus styliferous. Eyes 4 to 6 anterior. Fresh water Nemertinea.

1. EMEA RUBRA, *Leidy:* Pr. A. N. S. v, 125.

Body contracting irregularly, reddish or yellowish flesh colored. Anteriorly and posteriorly obtusely rounded. Eyes two or three black spots, placed in a line behind one another, upon each side of the head : often irregular. First pair of lateral depressions opposite the interspace of the anterior two pairs of eyes; second pair just postero-lateral to the posterior pair of eyes. Œsophagus very long and tortuous, villous, furnished at its bottom with a single spine or nail-like tooth, and four others upon each side in a rudimentary condition, enclosed in a sac. Intestine becoming obliterated posteriorly.

Ordinary length from 1 to 6 lines; breadth from 1-8th to 1-5th line. Occasionally 10 lines long by 1-3d broad.

Habitation. In marshes, ditches, and stagnant ponds in the vicinity of Philadelphia.

Variety a. White, 2 lines long; 1-6th line broad.

Habitation. On the under side of stones in the Schuylkill River.

Remark. I have sometimes met with the largest sized females without the appearance of a developed ovum, and at others, those of from 1 to 3 lines in length, with from 3 to 18 large yellow eggs.

2. EMEA DUGESII, *Leidy.*

Polia Dugesii, *Quatrefages:* Rech. Anatom. et Zoolog. ii, 211.

DENDROCŒLUM, *Oersted.*

Characters same as planaria, with the head furnished with a hemispherical cotyloid cavity, capable of eversion into the form of a pediculated discoidal acetabulum.

1. DENDROCŒLUM SUPERBUM, *Girard:* Proc. Bost. Soc. Nat. Hist. iii, 265; Keller and Tiedemann, Nordamerik. Monatsb. ii, 2.

Body thin, plano-convex, translucent white, with the sides nearly parallel; anteriorly truncated, with the lateral angles slightly projecting; posteriorly obtusely angular. Cotyloid cavity of the head prominent, opening at the anterior truncated margin, when everted presenting the form of a circular disk supported upon a broad columnar contraction of the head. Eyes two, nearly globular, composed of a transparent vitreous humour enclosed at the postero-internal half by a black choroid. Œsophagus long, keg shaped; intestine delicately and minutely ramified, brown or blackish-brown in color.

Length 3 to 8 lines; breadth 2-5th to 4-5th of a line. The longest may contract to 3 lines by 4-5th in breadth.

Habitation and Remarks. In ditches communicating with the Delaware and Schuylkill Rivers, below Philadelphia, creeping upon the submerged stems of Arum virginicum, Pontederia cordata, Nelumbium luteum, and Zizania aquatica.

When seized or irritated it everts its acetabulum, by which it attaches itself to surrounding bodies with the tenacity of a leech.

RHYNCHODEMUS, *Genus novum.*

Body cylindroid, ob-fusiform. Head continuous with the body, proboscidiform, recurvatile, without tentacular appendages. Eyes two, lateral. Interior structure planaroid. Terrestrial.

1. Rhynchodemus sylvaticus, *Leidy:* Pr. A. N. S. v, 241.

2. Rhynchodemus ? terrestris, *Leidy.*
Fasciola terrestris, *Müller.*
Planaria terrestris, *Gmelin:* Syst. Nat. 3092 ; *Duges:* An. Sc. Nat. 21, 82, Pl. 2, fig. 18; *Oersted:* Entw. d. Plattw.; *Diesing:* Syst. Helm. i, 206.

BDELLOURA, *Leidy:* Proc. A. N. S. v, 242.

Body dilated, plano-convex; posteriorly, dilated, constricted, truncated. Head continuous with the body; tentacular appendages none. Mouth inferior, subcentral; œsophagus protractile, cylindrical. Eyes two. Marine.

1. Bdelloura parasitica, *Leidy:* ib.

2. Bdelloura rustica, *Leidy:* ib. 243.

3. Bdelloura ? longiceps, *Leidy.*
Planaria longiceps, *Duges:* An. Sc. Nat. 21, 83, Pl. 2, fig. 21; *Diesing:* Syst. Helm. i, 207.

PLANARIA, *Müller.*

1. Planaria maculata, *Leidy:* Pr. A. N. S. iii, 251; v, 225.

Dugesia maculata, *Girard:* Keller and Tiedemann, Nordam. Monatsb. ii, 23.

Body thin, spatulate, with sharp, nearly parallel, lateral margins; anteriorly thin trapezoidal, the lateral angles formed by an acute, angular, erectile tentacular appendage; posteriorly sub-acute; superiorly a little convex, irregularly maculated with black, in the young sometimes with brown ; inferiorly translucent whitish. Eyes two, reniform, proximate, situated at the inner side of an oval translucent space.

Length from 2 to 8 lines.

Habitation. In ditches and ponds in the neighborhood of Philadelphia ; upon the under side of stones in the Delaware and Schuylkill Rivers, abundant.

Variety a. Brownish, indistinctly maculated.

Length 8 lines.

Variety b. Maculations greyish, indistinct, with the intestine blackish, brownish or greenish, frequently with a lighter stripe down the back.

Length 6 lines.

Habitation. Schuylkill River, under stones.

CATESTHIA,[*] *Genus novum.*

Body very soft, cylindroid. Head continuous with the body. Mouth infero-terminal; œsophagus amphoraform. Eyes two, deeply seated in the interior of an oval translucent space of the integument.

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[*] Κατεσθιω, devoro.

1. CATESTHIA STELLATO-MACULATA, *Leidy*.

Body oblong, cylindroidal; anteriorly and posteriorly obtusely rounded; superiorly maculated closely and regularly with very much branching, stellate, black pigment cells, which cease abruptly laterally, and anteriorly form 3 lobes, in the translucent whitish interspaces of which, deeply seated, are the eyes, which are black and globular; inferiorly translucent whitish. Mouth round, very large and dilatable; œsophagus amphoraform, very large.

Length 3 to 8 lines, breadth 1-4th to 1 line; thickness 1-5th to 4-5th line.

Habitation. Upon the under side of stones, in the Delaware and Schuylkill Rivers, below tide water mark.

Remarks. Closely allied to Vertex, *Hemp.* and *Ehrenb.*, but has not 4 eyes, and has a differently arranged generative apparatus.

It is exceedingly voracious; I have seen an individual, of 8 lines in length, swallow whole a Planaria maculata 6 lines in length.

Mr. Lea announced the death of RICHARD COWLING TAYLOR, which took place on Sunday morning, the 26th inst., at his residence in 13th street, in his 62d year, after a very short illness.

Mr. Lea remarked, that it was very rarely that the members of the Academy had to deplore so severe a loss, as that sustained by the death of their distinguished fellow member Mr. Taylor.

In his particular branch of Geology (economic-geology) he stood pre-eminent, and as a mining engineer, no authority in this country, or, perhaps, in Europe, was superior to that of Mr. Taylor. By early education and association in England, he became versed, in the most thorough manner, in these important sciences at an age when such education usually begins. Hence, his first literary productions brought him prominently before the learned world, and he was introduced into literary and scientific societies, where he took an active part. The first work of importance which he published, was one on the Monastic remains of the county in which his father lived as a country gentleman, and on whose property there was a noted Anglo-Norman ruin. It was this probably that induced Mr. Taylor first to turn his attention to this branch of knowledge, and the result was the "Index Monasticus, in the ancient kingdom of East Anglia," published in 1821, in 1 vol. folio,* which at once gave him a reputation for thorough investigation and exactness, which noted all his after works, and which has rarely been excelled. This work was received with so much favor, that Mr. Taylor was induced, at the request of the publishers, to undertake that thorough and learned work which he called a "General Index to Dougdale's Monasticon Anglicanum," in 1 vol. folio, with plates and maps, which was published in 1830. This took Mr. Taylor two years to complete, and was said to be so perfect as to require nothing further to be added in regard to it. In his profession, he had the great advantage of a most thorough and complete education, and he was associated in business with the late Wm. Smith, who has been considered as "the father of British Geology," on account of his having been the first geologist in England who attempted to classify the rocks of that country, by their characteristic fossils; and who was said to have preceded MM. Cuvier and Brongniart in that important step, which gave such an impulse to this great branch of human knowledge. Under such auspices, and by his assiduous application, Mr. Taylor made the most rapid advances in the art of Mining and the science of Geology. The early relations of this intercourse ripened into a friendship, and sincere mutual regard, which lasted through life.

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* At a public sale his private copy, with some notes, brought £30.

With such acquirements, he was soon called into active employment, and we find him engaged, for a time, in the important ordinance survey of England, and he was also employed by the "British Iron Company," whose extensive and valuable property in South Wales, he investigated and reported upon. That portion of the Ordinance Survey which he executed, was finished in a most masterly manner, and his drafts were of the most exact and perfect kind. His report of the topography and geology of the mineral lands of the British Iron Company, were so admirably executed, that the Geological Society of London published the map and descriptive parts in its Transactions. In connection with this, he executed a model in plaster of that part of Wales,* which received so much approbation, that the Society of Arts awarded to him their *gold Isis Medal*, which is now in possession of his family. Subsequently to this, he was engaged for some years, in England, in the examination of various mining properties, after which he was induced to accept an appointment by Hardman Phillips, Esq., an intimate friend of the family, to remove to this country, and reside in Phillipsburg, Pennsylvania, where he remained four years, under the expectation of the professional employment promised him there. This was an unfortunate movement for himself and family, which now consisted of a wife and four daughters. Having lost, in this residence, both time and money, he removed to Philadelphia, for the purpose of seeking that employment in his profession, in which he was so well qualified to excel. Previous to this, however, he was engaged in the survey of the Bossburgh District, and the line of railroad, which he completed, and made an extensive and able report in 1832.

It was after this time, in 1831, Mr. Lea first became personally acquainted with Mr. Taylor, which acquaintance immediately grew into a friendship, which increased through life. Shortly after this, Mr. Lea had it in his power to have Mr. Taylor placed in charge of the exploration of the extensive coal and iron property of the Dauphin and Susquehanna Coal Co., in Dauphin county, Pa., in which Mr. Lea had a large interest. Here Mr. Taylor remained about three years, and developed the mineral resources of this extensive mineral district, to the entire satisfaction of the Board of Directors. The whole of the lands embraced 42,000 acres, in a rugged, mountainous district, which required an experience and perseverance which few men had more of than Mr. Taylor. The result of this great labor was an elaborate report, of 187 pages in 8vo., together with about 150 maps, drafts, surveys and sections, which are invaluable to the Company, and in whose possession they now are. In connexion with this, during a period of cessation, in this country, of activity in such works, he employed himself in the execution of a model of this part of the coal basin and its surrounding mountains, which occupied him many months. This subsequently became the property of the Dauphin Company. It embraces in length about 45 miles, and in breadth 15 miles of the district it represents, and is about 14 feet long. It is a complete geological and topographical representation of this important district, and would be alone a monument to a man of science, if he had never executed any other labor.

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* This was the first model of the kind executed in England.

As soon as the mining interests of the country had become relieved from the pressure which had prevailed for a few years, he again was called on to explore and investigate many mineral districts, connected with the working of gold, silver, lead, copper, coal, asphaltum, &c. Most of these reports were published, and it is believed that, in every case, they were so correctly executed as to leave no doubt in the minds of those who employed him, as to his judgment, his candor and his scrupulous representations of that which he was employed to examine. It was one of the characteristics of Mr. Taylor, as all his intimate friends were perfectly aware, that his openness and frankness were such as to induce him never to hesitate to express a candid opinion, or to make known a fact, however much it might be against his own interests. It was this which induced the most unbounded reliance, among his friends, on his representations. Beside the numerous engagements he had in various States, he frequently had calls to examine important mines in other parts of America; the copper mines of Cuba, the gold mines of Panama, the asphaltum of New Brunswick, &c. In Cuba he was employed to examine and report on the vein of asphaltum near Havana, of which he published an account in the Trans. of the Am. Phil. Soc., with a plan and section. The last work of this nature he was engaged in, was the examination of the injected vein of asphaltum at Hillsborough, in the Province of New Brunswick, which is now in litigation. His testimony in this case, as taken down, and since published, is a specimen of such thorough knowledge in his profession, such clearness, exactness and completeness, as to be worthy of all praise. It should have a place in all geological libraries. He was greatly interested in this singular litigation, which seems, strange as it may appear to geologists and mineralogists, to depend on the decision of a jury, whether an injected vein of asphaltum be not a seam or bed of bituminous coal, belonging to true coal measures! Nothing could be more clear, nor more to the point, than Mr. Taylor's evidence to the contrary. While in the examination of various districts, in his professional employment, he carefully noted every fact connected with general geology and palæontology, and the results were generally given in the form of papers to scientific bodies, and published in their Transactions. These will be found in various learned transactions in England and this country—particularly in those of the Am. Phil. Soc. the Acad. of Nat. Sciences, and the Geological Soc. of Penn., on this side of the Atlantic. They all bear internal evidence of a philosophic mind, schooled in the consideration of philosophical facts.

Notwithstanding what has been said in regard to all these labors of a most industrious life, the reputation of Mr. Taylor will rest chiefly on a work which has not yet been mentioned—his "*Statistics of Coal,*" published in this city, in 8vo. pp. 754, in 1848. It included the geographical and geological distribution of mineral combustibles or fossil fuel, as well as notices of localities of the various mineral bituminous substances employed in arts and manufactures, illustrated by maps and diagrams, embracing, from official reports of the great coal producing countries, the respective amounts of their production, consumption, and commercial distribution, in all parts of the world.

The execution of this work had engaged Mr. Taylor's time, not necessarily devoted to the practice of his profession, during many years of his life. His heart was set upon the completion of it, and when approaching to a conclusion it drew his mind from all other pursuits. While it was going through the press, he became so ill that, for many weeks, his physician and his family had little expectation of his living to see it completed. During this period many of the sheets had to pass through the press without his inspection, which fact naturally produced some errors. When the work reached the hands of those interested in the statistics of coal, its geology, and its geographical distribution, it was received with the most entire satisfaction. His intimate friends were the first to congratulate him on the work he had achieved, and the criticisms of the press soon followed with their share of approbation. Dr. Fitton, the distinguished geologist, reviewed it in the Edinburgh Review, and gave o its author the credit he so well deserved, of which the following is a single paragraph.

"The inquiries of the author have been extended, with marvellous industry and perseverance, to every part of the globe; but, as might be expected of an engineer residing in America, the coal tracts of that country naturally occupy a large portion of the work. As these are probably less known, to most of our readers; than the coal producing states of Europe, while they are beyond all comparison the greatest depositories of coal in the world—affording to that fortunate region the prospect of almost unbounded wealth—we shall confine our attention chiefly to this part of the work. But our readers may be assured that the author's account of other countries gives equal proofs of his diligence in collecting information."

The *London, Edinburgh and Dublin Phil. Mag. and Jour. of Science*, in its notice of this work, says, "comprehensive as the title of this work appears, it does not yet convey a just idea of its scope, or the extent of the subject matter. Did its title stand, '*Coal the civilizer;* its natural history, productions and applications,' it would perhaps convey to the casual reader a more just idea of the object and contents of the work." * * * "A long and intimate practical acquaintance with mines and mining operations in different parts of the world, had necessarily led him to amass a great quantity of material; the value of which, as a constant object of reference for his own use, led him to feel the utility of a digested and methodized arrangement of those materials, in a permanent shape, for the use of others. But there is found, throughout these pages, a pervading spirit beyond that merely materialistic and dry one, which the title would indicate, and which the professional engagements of the author might have led us to anticipate. We perceive, impressed on every section, the idea, *not* of coal the mere *wealth producer*, the mere material instrument of the human animal, but of coal as an important agent in promoting civilization. It is in the same spirit, and imbued with the same everywhere pervading high moral sentiment, that the author more than once calls attention to the vastly greater importance of iron than of gold and silver. We cannot conclude without cordially recommending this work to the attention of our readers. While it will be an invaluable book of reference to every future inquirer into the numerous economic questions connected with our most important industrial operations, and manufactures, and into the great social questions arising out of them, it will form an indispensable part of the library of every geologist."

The *London Athenæum* in its notice says, "The work of Mr. Taylor will command attention, and become standard as a reference; especially as it is the only one which endeavors to concentrate the knowledge diffused through so many channels, and often attainable only in the countries to which the statistics refer."

The press in this country did not withhold its proper appreciation of a work so important to the great coal and iron interests this side the Atlantic.

In the notice in Silliman's Journal it is said, "It is a sufficient guarantee for its completeness and accuracy on all points on which it touches, that it received, before publication, the highest and most unqualified praise at one of the meetings of the American Association of Geologists and Naturalists." * * * "An examination of the volume, now that it has appeared from the press, gives us a still higher opinion of the talents and industry of its author, and the great value of his labors," &c. The Journal of the Franklin Institute stated it could scarcely have been thought possible that one individual, especially in this country, could have collected together such a mass of facts, and made of them so well arranged and so delightful a book. Hunt's Merchants' Magazine says, "We venture to say that, on no kindred subject, has a more complete or perfect treatise ever been produced."

Beside the proficiency which Mr. Taylor had acquired in economic geology, he had devoted himself much to theoretic geology, and his knowledge of the various formations, which make the sum of the geological series, was rarely excelled by his colleagues. He had devoted himself more particularly to the strata connected with the coal formation, and he was the first person, as Prof. Silliman stated to a meeting of the American Association of Geologists, who had referred the Old Red Sandstone, underlying the coal of this State, to its true position, corresponding with its place in the series of European rocks. He was unwilling to engage in State surveys, but his aid was sometimes required to assist in those particular branches in which he so much excelled. With this view he for a short time lent his services to the New York State Survey.

In the year 1832 he was elected a member of this Academy, and in 1846 a life membership was conferred upon him, "as a mark of respect and a just appreciation of its means of usefulness derived from him." His attachment to the Academy increased with his advancing years. He frequently made donations to it of specimens and books. Very recently, he presented a most elaborate geological table in manuscript, colored to represent the different strata, and combining the analogous nomenclature of various systems. This most valuable donation was made to the Academy on condition of its never being taken from the library, and it cannot fail to be most useful for consultation and reference.

At the time of his death, Mr. Taylor was engaged in preparing a paper, for the Journal of the Academy, on the fossil plants which he had discovered in his recent visit to New Brunswick. The fossil fishes which he also discovered there, he left with his friend Prof. Agassiz, who was to describe the new ones for him. All these Mr. Taylor intended should be deposited in the collection of this Academy, to which he had already added many valuable specimens.

Mr. Taylor was the third son of Samuel Taylor. of New Buckenham, in Norfolk, England, and a descendant of Dr. John Taylor, the author of the Hebrew Concordance. He was born at Banham, in Norfolk, Jan. 18th, 1789. His brothers and cousins were men generally distinguished by their great literary and scientific acquirements. His younger brother, Edgar Taylor, was a distinguished member of the legal profession in London, and an accomplished scholar. He was the author of several works, and remarkable for his numerous learned reviews, published in the most prominent periodicals in Great Britain. His cousin, Richard Taylor, is the well-known and able editor of the Philosophical Magazine, which has been the leading scientific Journal of England for the last 25 years. John and Phillip were equally distinguished as mining engineers.

The great services Mr. Taylor had rendered science, have been acknowledged, by his being made a member of the principal Societies in England and this country, which embraced those branches of knowledge which he cultivated. He was elected a member of the Geological Society of London, and of the Society of Civil Engineers, of that city. In this country he was a member of this Academy, as before mentioned; of the American Philosophical Society ; of the Geological Society of Pennsylvania; of the American Association of Geologists and Naturalists, of the Franklin Institute, &c. &c.

In a rapid survey of Mr. Taylor's scientific labors, it would be difficult to give any thing more than a brief and imperfect list of his writings. In this sketch will not be introduced his professional reports, which occupied the chief part of his life, and which were generally executed in such a systematic and perfect manner, as to remain models, worthy of imitation by all engaged in such works. Whether his beautiful map of the *Ordinance Survey*, executed in 1813—14, was the first, is not certain, but it seems to bear the earliest date. He subsequently published, in the Trans. Geological Society of London, "Notice of two Models and Sections of about eleven square miles, forming a part of the Mineral Basin of South Wales, in the vicinity of Pontypool," (1830.) "On the Crag Strata at Bramerton, near Norwich," (1823). "On the Alluvial Strata, and on the Chalk of Norfolk and Suffolk, and on the Fossils by which they are accompanied," (1823). In the Magazine of Natural History he published, in 1829, a paper called the "Progress of Geology," which was followed, in 1830, by another, the "Introduction to Geology," which was succeeded by "Illustrations of Antedeluvian Zoology and Botany." These papers were illustrated with many beautiful drawings and sections, and were published before he came to America. His first papers published in this country were, it is believed, in the Trans. of the Geological Society of Pennsylvania, with the following titles:—"On the Geological position of certain beds, which contain numerous Fossil Marine Plants of the family Fucoides, near Lewistown, Mifflin county, Pa.," (1834). "On the relative position of the Transition and Secondary Coal Formations in Pennsylvania, and description of some transition or Bituminous, Anthracite, and Iron ore beds, near Broad Top Mountain, in Bedford county, and of a coal vein in Perry county, Pennsylvania, with sections." "Notices of the evidences of the existence of an ancient Lake, which appears to have formerly filled the Limestone Valley of Kishacoquillas, in Mifflin county, Penna." "On the Mineral Basin or Coal Field of Blossburg, on the Tioga River, Tioga county, Penn." "Memoir of a section passing through the Bituminous Coal Field near Richmond, in Virginia." "Review of the Geological phenomena, and the deductions derivable therefrom, in 250 miles of sections, in parts of Virginia and Maryland. Also, notice of certain Fossil Acoty ledonous Plants in the secondary strata of Fredericksburg," (Vir.) In the Transactions of the American Philosophical Society he published "Memoir of the Character and Prospects of the Copper Region of Gibara, and a Sketch of the Geology of the N. E. part of the Island of Cuba." "Notice of Fossil Arborescent Ferns of the family Silliquaria and other Coal Plants, exhibited in the Roof and Floor of a Coal Seam in Dauphin county, Penn." "Notice of a Vein of Bituminous Coal recently explored in the vicinity of the Havana, in the Island of Cuba." (This was jointly with Mr. Clemson). In Silliman's Journal he published, "Notes respecting certain Indian Mounds and Earthworks in the form of Animal Effigies, chiefly in the Wisconsin Territory, U. S., with Plans and Illustrations." "Notice of a Model of the Western portion of the Schuylkill, or Southern Coal Field of Penn., in illustration of an Address to the Association of American Geologists, on the most appropriate modes for representing Geological Phenomena," (with illustrative sections). In the Journal and Proceedings of the Acad. Nat. Sciences, "Table constructed from a few Meteorological Notes, chiefly in regard to the daily temperature of noon, on the East Coast of the Isthmus of Panama, Port Royal, in Jamaica, and on the return voyage to New York, for the month of October, 1849." "Substance of Notes made during a Geological Reconnoisance in the Auriferous Porphyry region next the Carribean sea, in the Province of Veraguas and Isthmus of Panama," 1851, with maps. At the time of his sudden illness he was engaged in a paper entitled, "On a Vein of Asphaltum of Hillsborough, in Albert county, Province of New Brunswick," which he has left in an unfinished state, but which is so far complete as to justify its publication in the Journal of the Academy.

ELECTION.

J. L. Burtt, M. D., U. S. N., and W. L. Sherman, M. D., U. S. N., were elected *Members* of the Academy.

DONATIONS TO MUSEUM

IN SEPTEMBER AND OCTOBER, 1851.

September 2d.

Specimen of Asphaltum, from New Brunswick. Presented by Mr. J. Price Wetherill.

Calcareous Tufa, from Laselle county, Illinois. From Mr. H. H. Sims, through Dr. B. H. Coates.

Fifty specimens of Vesuvian Minerals. From Dr. W. Sherman, U. S. N.

Crystallized Franklinite, from Sussex county, N. Y. From Mr. W. S. Vaux.

Fragment of antler and tibia of Cervus, found in a marl bed near Deal, New Jersey; and recent Cellipora, from the same locality. Presented by Prof. J. F. Frazer.

Cone from one of the Palmaceæ, from Grand Lochoo, Ireland. From J. L. Burtt, M. D., U. S. N.

Loligo ——— ? Presented by Dr. Goddard.

Four Serpents, from Aberdeen, Scotland. From Capt. Jamieson, through Dr. Watson.

September 9th.

Four specimens of Silurian Fossils, from Capon Mount, Va.; dried Conferva, from Capon Springs, Va.; Calcareous Tufa, from Falls of St. Croix River, Wisconsin. Presented by Prof. W. E. Horner.

Teeth of Walrus, large size, from Behring's Straits; specimens of Lava and Sulphur, from the Sandwich Islands; Minerals and Silurian Fossils from Ohio; Fossils from the marl of New Jersey; same, from the Drift of N. J.; fragment of a fossil Tusk from the Harbor of San Francisco; fossil shark Teeth, from the marl of New Jersey; two species of Serpula; two do. of Balanus, and a specimen of Hippocampus, from Mexico; Vegetable Tallow, from China; three specimens of the fruit of Trapa bicornis, from China; several Coleopterous Insects. Presented by Dr. J. L. Burtt, U. S. N.

One hundred and thirty-five species of Shells, from numerous localities. Presented by the same.

September 16th.

Numerous specimens of recent Shells, including two species of Anadonta, two of Bulimus, one Glandina, one Chiton, one Ampullaria, one Neretina, one Purpura, one Littorina, from the vicinity of Carthagena, S. America. Presented by J. C. Trautwine, Esq., through Prof. Frazer.

Fossil Shell. From the same.

Jaws of Sargus ovis. Presented by S. Ashmead.

Crystalline Slag: Silicate of Iron. From Mr. I. Lea.

Subterranean Fungus, from Wisconsin. From Dr. Horner.

October 7th.

Forty-two specimens of Eocene Tertiary Fossils, British; arranged on trays, with magnified views of each species; prepared by the British Nat. Hist. Society. Presented by Dr. T. B. Wilson.

Thirteen British Fossils, from the Bennett and Charlesworth Collections. From the same.

Sixty-three specimens of Echinodermata, from the West Indies, West Coast of Africa, and the Mauritius. From Edward Wilson, Esq.

Cranium of the larger Prairie Wolf, and two Silurian Fossils, from New Mexico. From Mr. Edward H. Kern.

Skin of a Polar Bear, Ursus Arctos, of very large size; the individual from which it was obtained was killed by Dr. E. K. Kane, of Philadelphia, Surgeon to the late American Arctic Expedition, and presented by him to the Academy.

Fine skin of the Rocky Mountain Sheep, Ovis montana. Presented by the Smithsonian Institution, through Prof. Baird.

Forty specimens of Tertiary Fossils, from California. From Dr. J. L. LeConte.

Native Cinnabar, from California. From the same.

October 14th.

Fruit of Lycthis grandiflora, from Matanzas, and Serpentine from New Jersey. From Mr. D. M. Schellinger, through Dr. Watson.

Magnetic Oxide of Iron, from the West shore of Lake Champlain. Presented by Mr. Isaac Lea.

Mass of Glass, containing numerous radiated crystals of Silicate of Lime. From Dr. J. C. Fisher.

Asphaltum from New Brunswick, Cuba, and Trinidad Lake. From Mr. Richard C. Taylor.

October 21st.

Two vertebræ and a jaw-fragment of a fossil Cetacean; two vertebræ and two teeth of a fossil Saurian; ten teeth of fossil Sharks; two specimens of fossil Pecten, and tube of a large fossil Annelide. From Westmoreland county, Virginia. Presented by Mr. Robert H. Nash.

Mounted specimen of Mustela Vison. From Mr. Wm. Wood.

Mounted specimen of Cricetus vulgaris, from Germany; and Fiber Zibethicus, from Pennsylvania. Presented by Dr. J. C. Fisher.

Geophilus ——? from Brazil; and Scarabæus tityus, from S. Carolina. From Dr. J. H. Rand.

DONATIONS TO LIBRARY

IN SEPTEMBER AND OCTOBER, 1851.

September 2d.

Proceedings of the Boston Society of Natural History. Vol. 4, pp. 1—32. From the Society.

Supreme Court, Halifax, N. S. Abraham Gesner *vs.* Halifax Gas-light Co. Deposition of Richard C. Taylor respecting the Asphaltum Mine at Hillsborough. From Mr. Taylor.

Report on the Agricultural capabilities of the Province of New Brunswick. By J. E. W. Johnston. 2d ed. From the same.

Annual Address, by Mr. Justice Carter, before the Frederikton Athenæum, Feb., 1850. From the same.

Annual Address before the same, by the Rev. J. M. Brooke, Feb., 1851. From the same.

Dr. Wilson presented the following, on the usual condition:—

Archiv für Naturgeschichte; Herausg. von Dr. F. H. Troschel. No. 6, 1848, No. 6, 1849, No. 1, 1851.

Zeitschrift für Malakozoologie von H. T. Menke, M. D., und Dr. L. Pfeiffer, No. 11, 1850.

Revue et Magasin de Zoologie. Par M. Guerin-Meneville. Nos. 5 et 6, de 1851.

The London Athenæum, July, 1851.

Comptes rendus. Tome 32, Nos. 20—26; Tome 33, No. 1; et index du tome 31.

Illustrations Conchyliologiques. Par M. Chenu. Livs 82, 83, folio.

Aves de la Isla de Cuba. Par Juan Lembeye. Nos. 1—8, 4to.

Cosmos essai d'une description physique du Monde. Par Alex. de Humboldt, Traduit par H. Faye. Tome 3, 8vo.

September 9th.

Note sur l'experience communiquée par M. Leon Foucault a l'Académie des Sciences de Paris. Par Jean Plana. From the Author.

Pennsylvania Farm Journal, No. 6, Sept., 1851. From the Editor.

The Terrestrial Air-breathing Mollusks of the United States and the adjacent Territories of North America. By Amos Binney, M. D. Vols. 1 and 2, 4to. From the Executors of the Author, in accordance with his will.

The following were presented by Mr. Edward Wilson, on the usual condition :—

Histoire Naturelle éclaircie dans une de ces partiès principales. La Conchyliologie. Nouv. ed. 4to.

Appendix de trois nouvelles planches aux anciennes de la Conchyliologie, &c.

Narrative of a five years expedition against the revolted negroes of Surinam, in 1772 to 1777. By Capt. J. G. Stedman. 2 vols. 4to.

The American Gardener's Calender. By Bernard McMahon. 8vo.

The Silver Coins of England arranged and described. By Edward Hawkins, Esq.

An Essay on the history, practice and theory of Electricity. By John Bywater. 8vo.

An introduction to Mineralogy. By Robert Bakewell, Esq.

Malacologia terrestre et fluviale della Provincia Cornasca di Carlo Porro. 8vo.

Catalogue d'une collection de Coquilles vivantes provenant du Cabinet de M. M.

Société fraternelle. Fondation d'une Colonie agricole de jeunes détenus à Mettray.

Dissert. inaug. de Helicis Algiræ vasis sanguiferis auctore Michaelo Erdl.

Nomenclature systematique selon M. Lamarck d'une assortiment de Conchyles de J. G. Voight à Amsterdam.

Ragguaglio delle osservazioni ed esperienze fatte sulla Argonauta Argo da Madame Janetta Power del Prof. C. Maravigna.

Notice de la collection de Coquilles de M. Vignard.

Catalogue of Pictures, Casts, &c., in the Liverpool Royal Institution, June, 1836.

An Essay on the Eternal Duration of the Earth. By the Rev. F. O. Morris.

Quelques considerations sur les nègres en general. Par F. Garnot.

Observations on certain curious indentations in the Old Red Sandstone of Worcestershire and Herefordshire. By Jabez Allies, Esq.

Observations sur le projet de Loi relatif aux alienés, par M. Fabret.

The Naturalist. Conducted by Beverly E. Morris. Nos. 1 and 2.

Rapports de l'Academie des Sciences sur les travaux de M. Duclos.

Recherches sur la population du Globe terrestre. Par J. B. Eyries.

Sur les Ichthyolites ou les Poissons fossiles. Par M. de Blainville.

Observations sur des dents fossiles trouvées à Montabusard pres Orleans. Par M. le Comte T. de Tristay.

Lettres sur la Race Noire et la Race Blanche. Par G. D'Eichthal et J. Urbain.

Notice sur une nouvelle espèce d'Haliotis fossile. Par M. Manuel de Serres.

Queries respecting the Human Race, to be addressed to Travellers and others; drawn up by a Committee of the British Association.

De Parenchymate et Vasorum Capillarium systemate. Auctore H. Koch.

Des Races Humaines, ou Elements d'Ethnographie. Par J. J. d'Omalius d'Halloy.

On the extinction of Human Races. By Dr. Prichard.

Osservazioni Zoologiche intorno ai Testacei dell'Isola di Pantellaria. Lettra del Dott. O. G. Costa al Sig Gussone.

Ornitologia Veneta, ossia Catalogo degli Uccelli della Provincia di Venezia di Fortunato Luigi Naccari.

Dualism multiple de l'organisation et de ses antagonismes dans l'homme et le regne animal. Par J. J. Virey.

Esclavage de la Race Noire aux Colonies Françaises. Par Charles Levavasseur.

Catalogue de la collection de Coquilles exotiques de J. B. Bouillet. MSS. 8vo.

Recherches physiques, chemiques et physiologiques sur la Torpille. Par M. Charles Matteucci.

Analysi ragionata delle opere recentamenti publicate sul Vermi del corpo umano, e degli animali dei Dott. Bremser di Vienna e Prof. Rudolphi di Berlino.

De la distribution par mois des conceptions et des naissances de l'homme. Par L. R. Villerme.

Notice historique sur le sauvage de l'Amerique. Par P. J. Bonnaterre.

De genre Euphones. Autore Dr. P. W. Lund.

Notice sur les Indigénes de l'Amerique du Sud et en particulier sur la tribu des Indiens Charruas.

Descriptions de plusieurs nouvelles especés de coquilles du genre Rissoa. Par A. C. G. Michaud.

Observations on the brumal retreat of the Swallow. By Thomas Forster. 2d ed.

Considerations sur la distribution des Mammiferes terrestres fossiles dans le Departement du Puy de Dome. Par A. Bravard.

Precis sur la mine de Sel Gemme de Vie et sur les principales mines de Sel de l'Europe. Par M. d'Arcet.

Biographical notice of Joseph Napoleon Buonaparte. 2d ed. 8vo.

Observations on the natural history of two species of Wasps. By the Rev. E. Bigge.

The Sanatory condition of Oxford. By W. P. Ormerod.

On the relation of the several parts of Mathematical Science to the fundamental idea therein contained. By Bartholomew Price.

On education in the principles of Art. By the Rev. R Greswell.

Essay on the theory of the combination of observations. By W. F. Donkin.

Additional observations for determining the refractive indices for definite rays of the Solar spectrum in several media, and 2d supplement to the same. By the Rev. Baden Powell.

On the theory of ratio and proportion, by the Rev. B. Powell; on the nature and evidence of the primary laws of motion, by the same; on the theory of parallel lines, by the same; on necessary and contingent Truth, by the same.

Remarks on the proportionate quantities of Rain at Oxford, by S. P. Rigaud; on the Arenarius of Archimedes, by the same; account of some early proposals for Steam Navigation, by the same; A defence of Halley, by the same.

Narrative of an excursion to the Lake Ansanctus, by Charles Daubeny, M.D.; Sketch of the Geology of North America, by the same; on the site of the ancient city of the Aurunci, by the same.

On the Amphitheatre of Pola in Istria. By Travers Twiss.

An account of the Roman Road from Allchester to Dorchester, and other remains in the neighborhood. By the Rev. R. Hussey.

On the earlier notices relative to the natural history of the Giraffe. By F. Holme.

On the collection of Boracic Acid from the Lagoni of Tuscany. By Thomas Tancred.

Notes on the Indica of Ctesias. By H. H. Wilson.

September 16th.

American Journal of Science and Arts. Sept., 1851. From the Editors.

Bulletin de la Société Imperiale des Naturalistes de Moscou. Nos. 3 et 4 1850. No. 1, de 1851. From the Society.

Proceedings of the Boston Soc. of Nat. History. Vol. 4, pp. 33—64. From the Society.

Transactions of the Amer. Philosoph. Soc. New series, vol. 9, pts. 3 and 4, (wanting to complete the series in the Library). From the Society.

Transactions of the Linnean Society of London. Vol. 20, pt. 3. 4to. From the Society.

List of the Linnean Society for 1851, and Proceedings of the same, No. 44. From the same.

The Charleston Medical Journal and Review. Vol. 7, No. 5. From the Editors.

Annals of the Lyceum of Natural History of New York. Vol. 5, No. 3. From the Lyceum.

Annual Report of the Trustees of the New York State Library, 1848. From the Trustees.

Second Annual Report of the Regents of the University of New York on the condition of the State Cabinet of Nat. Hist. 1849. From the Regents.

On the impregnation of the Ovum in the Amphibia, (1st ser.) By George Newport. From the Author.

Transactions of the Horticultural Society of London. 1st series. Vols. 1 to 6. 4to. From Mr. George Ord.

Same work. Vol. 7, 1st ser.; and vols. 1 and 2, 2d series. 4to. From Dr. Wilson.

October 7th.

Contributions to Ornithology. By Sir W. Jardine. Part 3 for 1851. From H. E. Strickland, Esq.

Quarterly Journal of the Geological Society of London. No. 26. From the Society.

Addittamenta ad Faunam Carcinologicam Africæ Occidentalis; Edidit J. A. Herklots. From Mr. Herklots.

Journal of the Indian Archipelago and Eastern Asia. Vol. 5, Nos. 3 and 4. From the Editor.

Memorandum respecting Choristopetalum impar and Cyathophora? elegans. By Wm. Lonsdale, Esq. From the Author.

Deutsche Ornithologie, oder Naturgeschichte aller Vögel Deutschlands. Von Dr. Bekker, Leichthammer, &c. No. 22, folio. From Dr. J. J. Kaup.

Portrait of John E. Gray, Esq. From Mr. Gray.

Ostéographie ou description iconographique comparee du squelette et du system dentaire des cinqe Classes des An. vert. et fos. Mammiferes. 2 plates. From M. Potier.

Palæontographical Society. Crag Mollusca, part 2; Mollusca from the great Oolite, part 1; British Oolitic and Liasic; Brachiopoda, part 3; Fossil Reptilia, part 3; British fossil Corals, part 2. From the Society.

Dr. Wilson presented the following, on the usual condition:—

Table des Planches Enluminees. Par M. Boddart. (MSS.) folio.

Comptes rendus. Tome 33, Nos. 2, 3, 4.

The London Athenæum. August, 1851.

Journal de Conchyliologie. 1851, No. 1.

History of the British Mollusca and their Shells. By Prof. Forbes and S. Hanley. Pts. 39 and 40.

Phycologia Britannica. By W. H. Harvey, M. D. Nos. 59, 60.

Annals and Magazine of Nat. History. Nos. 42, 43, 44.

Actes de la Société Linnéenne de Bordeaux. Livs 5 et 6. Tome 16.

Palæontologie Française. Par Alcide D'Orbigny. Terrains Jurassiques, livs. 64, 65, 66: Terrains Cretaces, livs. 163—168.

Tidschrift voor Natuurlijke Geschiedenis en Physiologie. Door J. Van der Hooven, M. D. en W. H. De Vriese, M. D. Vol. 9, (nos. 2, 3, 4,), Vols. 10, 11, 12.

Outlines of Comparative Anatomy. By Robert E. Grant, M. D. 8vo.

Journal of the Franklin Institute for September, 1851.

Conchologia iconica. By Lovell Reeve. Nos. 98, 99, 100.

Palæontographia. Beitrage zur Naturgeschichte der Vorwelt. Von Dr. W. Dunker und H. von Meyer. Vol. 2, No. 2.

Untersuchungen über Trilobiten. Von Dr. Ernst Beyrich. No. 2.

Illustrations of British Mycology. By Mrs. T. J. Hussey. 2d ser. Nos. 5, 7, 8.

Exploration Scientifique de l'Algérie pendant les annees 1840, '41, '42. Feuilles supplementaires 3me liv.

The genera of Diurnal Lepidoptera, by E. Doubleday; continued by J. O. Westwood. Nos. 43, 44, 45, 46.

Voyage en Abyssinie, pendant les annees 1839—'43; Publié sous la direction de M. Theo. Lefebvre. No. 33, and chart.

The Birds of Asia. By J. Gould. Part 3.

Index Palæontologicus. Von Dr. H. G. Bronn. Vols. 1 and 2. 8vo.

Memoires de Physique et de Chimie de la Société d'Arcueil. 3 vols. in 2. 8vo.

Bibliotheca Zoologica et palæontologica. Edited by Wm. Englemann. 8vo.

The Viviparous Quadrupeds of North America. By J. J. Audubon and the Rev. J. Bachman. Text. Vol. 2. Royal 8vo.

Grundzüge der Wissen. Botanik. Von M. J. Schleiden, Dr. 2 vols. 8vo.

Report of the 20th meeting of the British Association for the advancement of Science. 8vo.

Memoires de la Société Nationale des Sciences, &c. de Lille. An. 1849. 8vo.

Cephalogenesis. Auctore J. B. Spix. Folio.

Calcutta Journal of Natural History. Vols. 5 and 7, and Vol. 8, nos. 1 and 2.

Histoire naturelle gen. et partic. des Mollusques terrestres et fluviales, &c. Oeuv. post. de M. de Ferussac, continue par M. de Ferussac son fils. Liv. 42. 4to.

The Philosophical Magazine. By Alex. Tilloch. Vols. 1 to 23, and 56 to 68. 8vo.

October 14th.

Views of Louisiana: with a Journal of a voyage up the Missouri in 1811. By H. M. Brackenridge. 8vo. From Dr. G. W. Fahnestock.

Report of a Geological exploration of part of Iowa, Wisconsin and Illinois. By David Dale Owen, M. D. From U. S. Treasury Department.

The Coal Regions of Pennsylvania. Edited by Eli Bowen. 8vo. From Mr. Samuel Powel.

Report of a Geological examination of some tracts of land in Alleghany county, Md., and Hampshire county, Virginia. By Wm. E. A. Akin. From the same.

Map of a part of Pennsylvania, exhibiting the surveys made by the Sunbury and Erie Railroad, under the direction of Edward Miller. From the same.

Charleston Medical Journal and Review. Vol. 5, No, 4. July 1851: From the Editors.

The Pennsylvania Farm Journal. Edited by S. S. Haldeman. No. 7. Oct. 1851. From the Editor.

Memoires de la Soc. de Physique et d'Hist. Nat. de Genéve. Tome xii. pt. 2. 4to. From the Society.

Map of the Anthracite Coal Fields, (1st and 2d). By Samuel R. Fisher, (1836.) From Col. J. Hare Powel.

The following were presented by Mr. Wm. Haidinger, of Vienna:—

Ueber den Cordieret. Von W. Haidinger.

Ueber den Pleochroismus der Krystalle. Von W. Haidinger.

Ueber die Pseudomorphosen und ihre anogene und katogene Bildung. Von W. Haidinger.

Ueber den durchsichtigen Andalusit von Minas Novas in Brasilien und den Diaspor von Schemnitz. Von W. Haidinger.

Ueber das Eisenstein-Vorkommen bei Pitten in Österreich. Von W. Haidinger.

Ueber den Löweit, eine neue Species aus der Ordnung der Salze. Von W. Haidinger.

Der Rothe Glaskopff, eine Pseudomorphose nach braunem. Von W. Haidinger.

Note ueber das Vorkommen von gediegenem Kupfer zu Reesk bei Erlau in Ungarn. Von W. Haidinger.

Jahrbuch der Kaiserlich-Königlichen Geologischen Reichsanstalt. 1850. 1 Jahrgang. Nos. 1, 2.

Ueber die Schwarzen und Gelben Parallel-Linien am Glimmer. Von W. Haidinger.

Darstellung der bisherigen Entwicklung des k. k. Reichsinstitutes für die Geologische Durchforschung der Monarchie. Von W. Haidinger.

Ueber die Natur der Polarisationbuschel. Von Sir David Brewster an W. Haidinger.

Ueber die Ursache der Erscheinung der Polarisationbüschel. Von W. Haidinger.

Ueber die Formen und einige optische Eigenschaften der Magnesium-Platin-Cyanure. Von W. Haidinger.

Bericht uber die Geognostische Uebersichts-Karte der österreichischen Monarchie. Von W. Haidinger.

Betrachtungen uber den Eisgang der Flüsse. Von W. Haidinger.

Ueber eine eigenthümliche Varietat von Talk. Von W. Haidinger.

Ueber eine nach Gypskrystallen gebildete Pseudomorphose von Brauneisenstein. Von W. Haidinger.

Ueber eine neue Varietat von Datolith. Von W. Haidinger.

Ueber die Galmeihöhle und die Frauenhöhle bei Neuburg in Steiermark. Von W. Haidinger.

Ueber ein neues Vorkommen von Kupferkies aus dem Salzberge von Hall in Tirol. Von W. Haidinger.

Bemerkungen uber die geologischen Karten von England. Von Prof. A. Favre.

Note über der metallähnlichen Schiller des Hypustheus. Von W. Haidinger.

Ueber den Zusammenhang des orientirten Flachenschillers mit der Lichtabsorption farbiger Krystalle. Von W. Haidinger.

Ueber den Pleochroismus des oxalsauren Chromoxydkali's. Von W. Haidinger.

Ueber den Antigorit. Von W. Haidinger.

Die dichroskopische Loupe. Von W. Haidinger.

Ueber das Eis der Donau in dem gegenwartigen Winter 1848, '49. Von W. Haidinger.

Ueber die symmetrische Gruppirung ungleichartiger Feldspathe. Von W. Haidinger.

Die Oberflächen und Körperfarben des Andersonits einer Verbindung von Iod und Codein. Von W. Haidinger.

Ueber Pseudomorphosen von Feldspathen. Von W. Haidinger.

Bemerkungen über den Glanz der Korper. Von W. Haidinger.

Commissionsbericht der Herren Partsch und Haidinger in der Sitzung der Mathemat-naturwissen. Classe von 26 April, 1849.

Bericht erstattet von W. Haidinger, über die der Mathemat-naturwissen. Classe der k. Akad. der Wissen. in ihrer Sitzung am 19 Nov. 1849, von dem k. k. Akad. Herrn Bergrath Chr. Doppler vorgelegten Substanz.

Mittheilung über Dr. Constantin von Ettingshausen's Synopsis der fossilen Flora von Radobej. Von W. Haidinger.

Ueber eine neue Varietat von Amethyst. Von W. Haidinger.

Ueber den Dutenkalk. Von W. Haidinger.

Naturwissenschaftliche Abhandlungen, gesammelt und durch subscription herausgegeben. Von W. Haidinger. Vols. 1, 2, 3. 4to.

Berichte über die Mittheilungen von Freunder der Naturwissenschaften in Wien. Von W. Haidinger. Vols. 1 to 6. 8vo.

October 21st.

Die Cephalopoden des Salzkammergutes aus der Sammlung Seines Durchlaucht des Fürsten von Metternich. Von W. Haidinger.

Presented by Prince Metternich, through Chevalier Hulseman.

The following were presented by Mr. Edward Wilson, of Wales:—

Verzeichniss des Gypsabgüsse von dem Ausgezeichnetsten urweltlichen Thierresten des Grossherzoglichen Museum zu Darmstadt. Von J. J. Kaup und J. B. Scholl.

Favorite Song Birds. Edited by H. G. Adams. 12mo.

The Treasury of Natural History. By Samuel Maunder; new edition. 8vo.

Synopsis of the British Museum. 36th, 41st and 42d editions.

De Antennis Insectorum. Dissert. inaug. Auctor M. C. G. Lehman.

Domestic Fowl. Their natural history, breeding, rearing and general management. By H. D. Richardson.

Remarks on the account of the late voyage of discovery to Baffin's Bay, published by Capt. J. Ross, R. N. By Capt. Ed. Sabine.

An explanation of Capt. Sabine's Remarks on the late voyage of discovery to Baffin's Bay. By Capt. John Ross, R. N.

Journal of a voyage of Discovery to the Arctic Regions, in 1818, by Wm. Ed. Parry, in H. M. S. Alexander. By an Officer of the Alexander.

Revue critique de l'Ornithologie Europeenne de M. le Dr. Degland. Par Charles L. Bonaparte. 8vo.

A letter to John Barrow, Esq., on the extraordinary discoveries made by a Quarterly Reviewer and Capt. Parry.

American Ornithology, by Alexander Wilson, with a continuation by Charles L. Bonaparte; the illustrative notes and life of Wilson, by Sir Wm. Jardine. 3 vols. 8vo.

Descriptive catalogue of the preparations in the Museum of the Royal College of Surgeons in Ireland. By John Houston, M. D. Vol. 1, Anatomy.

Contributions towards a Fauna and Flora of the County of York. 8vo.

Observations on Mount Vesuvius, Mount Etna, and other Volcanos, in a series of letters to the Royal Society, by Sir Wm. Hamilton. 8vo.

The Philosophy of Earthquakes, natural and religious. By Wm. Stukely, M. D. 2d. ed.

Avium Genera. Auctore P. H. G. Moehringo. 8vo.

A voyage to Hudson's Bay, by the Dobbs Galley and California, in 1746, '47. By Henry Ellis. 8vo.

Apuntamientos para la historia Natural de los Quadrupedos del Paraguay y Rio de la Plata. Por Don Felix de Azara. 2 vols. 8vo.

Das Thierreich in seinen Hauptformen systematisch beschreiben von Dr. J. J. Kaup. 3 vols. in one. 8vo.

Drops of Water: their marvellous and beautiful inhabitants displayed by the microscope. By Agnes Catlow. 8vo.

The impracticability of a North-West Passage for ships, impartially considered.

Researches about atmospheric phenomena. By Thos. Forster. 3d ed. 8vo.

Travels in the United States of America and part of Canada. By Wm. Dalton. 8vo.

Le Regne Mineral ramené aux méthodes de l'histoire naturelle. Par L. A. Necker. 2 vols. 8vo.

Observations on the probability of reaching the South Pole. By James Weddell, Esq.

Cours de Physiologie générale et comparée. Par M. Ducrotay de Blainville. 3 vols. 8vo.

Delineations of the Ox Tribe. By George Vasey. 8vo.

The Geological Observer. By Sir Henry de la Beche. 8vo.

The History of Barbadoes. By Sir Robert H. Schomburgh. 8vo.

Journal of a voyage to the Northern Whale Fishery. By Wm. Scoresby, jr. 8vo.

Description des Alpes Pennines et Rhetiennes. Par M. T. Bourritt. 3 vols. 8vo.

Einleitung zur Naturgeschichte der Eingeweidewürmer. Von J. G. H. Zeder. 8vo.

Tractatus historicus de Ascaribus et Lumbrico lato. A Stephano Coulet, M. D. 8vo.

Reflexiones imparciales sobre la humanidad de los Espanoles en las Indias contra los pretendidos Filosifos y Politicos. Por el Abate don Juan Nuix. 4to.

A treatise on Diamonds and Pearls. By David Jeffries. 8vo.

A synopsis of the British Flora. By John Lindley. 8vo.

An attempt towards a natural history of the Polype. By Henry Baker. 8vo.

An account of New Zealand, and of the formation and progress of the Church Missionary Society's Mission in the Northern Island. By the Rev. Wm Yates. 8vo.

Oppian's Halieuticks of the nature of Fishes and Fishing of the ancients, in five books, translated from the Greek. 8vo.

Recherches experimentales sur l'Inanition. Par Charles Chossat, M. D.

Skizzirte Entwickelungs-geschichte und Naturliches-system der Europäischen Thierwelt. Von Jacob Kaup. 8vo.

November 4th, 1851.

Vice-President Bridges in the Chair.

Letters were read:

From Isaac Chipman, Esq., dated Acadie College, October 3d, 1851, acknowledging the receipt of his notice of election as a Correspondent, and announcing that he had transmitted a box of minerals from his vicinity for the Academy.

From the Librarian of the British Museum, dated October 7th, 1851, acknowledging the receipt of No. 9, Vol. 5, of the Proceedings.

From Mr. William H. Towson, of Philadelphia, stating that the collection of minerals belonging to the late Dr. William Gambel, was for sale. Referred to the Mineralogical Committee.

Dr. Leidy observed that he had examined the fossil saurian bones, consisting of two teeth, two vertebræ, a fragment of a rib and an ungual phalanx, presented to the Academy October 21st, by Mr. Robert H. Nash, who obtained them from the Miocene formation of Westmoreland county, Virginia. Dr. Leidy found them to belong to a new extinct species of Crocodile, for which he proposed the name of Crocodilus antiquus.

Mr. Theodore F. Moss read some remarks on the Geology of Texas.

Dr. Fisher announced that the Trustees of the University of Pennsylvania had granted the use of the College Hall to the Academy, for the purpose of hearing the Memoir of the late Dr. Morton read by Dr. Meigs.

November 11th.

Vice-President Bridges in the Chair.

Dr. Le Conte, of New York, read a paper, intended for publication in the Proceedings, entitled "Synopsis of the species of Donacia, by John L. Le Conte, M. D.," which was referred to a Committee consisting of Dr. Leidy, Dr. Hallowell, and Mr. Haldeman.

Dr. Le Conte read a second paper, also intended for publication in the Proceedings, entitled "Zoological Notes," which was likewise referred to the above Committee.

A letter was read from Mr. Alexander Vattemare, dated Paris, October 19th, 1851, announcing that he had addressed to the Academy a box, containing three crania, procured from the Museum of Natural History of Paris, at the request of the late Dr. Morton, and calling the attention of the Academy to the importance of a universal system of international exchanges between scientific institutions.

Letters were also read:—

From the Trustees of the New York State Library, dated Albany, November 3d, 1851, acknowledging the receipt of No. 10, Vol. 5, of the Proceedings.

From the Librarian of the Boston Society of Natural History, dated

November 5th, 1851, requesting certain numbers of the Proceedings of the Academy necessary to complete the series in the Library of that Institution.

From Dr. J. L. Burtt, U. S. N., dated U. S. Naval Hospital, New York, November 8th, 1851, acknowledging the receipt of his notice of election as a Member.

Dr. Leidy presented a list of minerals offered by the Bavarian Government, and also a list of minerals of this country desired by the same in exchange. Referred to the Mineralogical Committee.

Dr. Leidy called the attention of the members to some fossil bones from the Miocene formation of Virginia, which he characterized as having belonged to two species of Whale, as follows:—

BALAENA PALÆATLANTICA, *Leidy*. This species is proposed upon a fragment of a lower jaw, a dorsal vertebra, and the zygomatic portion of the temporal bone. The specimens were discovered by Dr. R. Eppes in Virginia, and presented to Prof. W. E. Horner, to whom they belong. They were found in association with Pecten Jeffersonius, Venus tridacnoides, etc. The fragment of lower jaw, 8½ inches long, is stout in its proportions, is relatively straight, with no tendency to curve downwards. In section it is vertically ellipsoid, but becomes more cylindroid anteriorly. Internally it is convex, externally demicylindroid. The upper margin is elevated, obtuse, and irregular. Just within it, in the specimen, situated about two inches apart, are three gingeval foramina, about four lines in diameter, and slightly oblique forwards in their direction. External to the upper margin at the anterior half of the specimen, about one inch apart, are two large labial foramina, one four lines, the other five lines in diameter, directed very obliquely forward.

Measurements of the fragment.

	Post.	Ant.
Vertical diameter,	4½ inches,	3¾ inches,
Transverse "	2¾ "	2 " 10 lines.

The dorsal vertebra indicates an adult animal. Its articular faces are flat and compressed circular. The transverse processes and neural arch are broken away.

Measurements:

Length of the body,		6¾ inches,
Breadth "	ant. 6, post. 7	"
Depth "	" 5½, " 6	"
Breadth of transverse process,		4½ "
" neural arch,		4½ "
" spinal canal,		2½ "

BALAENA PRISCA, *Leidy*. This species is proposed upon a fragment of a lower jaw and a caudal vertebra, found in association with Crocodilus antiquus, Pecten Jeffersonius, &c., in Westmoreland county, Virginia. The specimens were obtained by Mr. Robert H. Nash, and presented by him to the Academy.

The fragment of lower jaw, fourteen inches long, is of much more slender proportions than that of the preceding, it is also more uniform in its breadth and depth, and has a strong curve downwards as in B. rorqual, *Lac.* It is very nearly flat internally and demi-cylindrical externally. The upper margin is angular but not prominent, and forms the boundary between the inner and outer side. The gingeval foramina, five in number in the specimen, are placed below the upper margin internally, are about one line in diameter, and open very obliquely forward into grooves almost horizontal, from half an inch to one inch long. The labial foramina of which there are the remains of seven in the specimen, are about half an inch external to the upper margin, are about two lines in diameter, and open very obliquely forward.

Measurements of the fragment.

Vertical diameter, ...	3 inches.
Transverse "	2 "

The caudal vertebra found associated with the above fragment, and which I suppose to belong to the same animal, is adult, and indicates a larger species than the B. palæatlantica, for it is as large as the dorsal vertebra of the latter. Its articular faces are subcircular, and are moderately convex. The transverse processes and neural arch are broken away in the specimen, as is also the case with the abutments of the chevron bone. The transverse processes have their origin 1½ inches posterior to the anterior articular face.

Measurements.

Length of the body,	6½ inches.
Breadth of anterior articular face,	6¾ "
Depth " " "	6 "
Breadth of transverse process,	4 "
" neural arch,	3¾ "
" spinal canal,	7 lines.

Dr. Fisher, on behalf of the Committee on the Memoir of Dr. Morton, announced that it had been read by Dr. Meigs on Thursday evening last, November 6th, 1851, at the Hall of the University of Pennsylvania.

Whereupon the following resolutions were offered, and unanimously adopted:—

Resolved, That the sincere thanks of this Society are due, and are hereby presented to Dr. Charles D. Meigs, for his able and highly appropriate Memoir of its late President, Dr. Samuel George Morton, read before the Society on the 6th inst., at the Hall of the University of Pennsylvania.

Resolved, That the Memoir be published, and that the Committee on Proceedings have charge of the same.

November 18th.

Vice President Bridges in the Chair.

A letter was read from the Asiatic Society of Bengal, dated Calcutta, May 9th, 1851, acknowledging the receipt of Part 1, Vol. 2, new series of the Journal.

Dr. Leidy read a paper, intended for publication in the Proceedings, entitled "On some American Fresh-water Polyzoa."

Also a second paper, intended for publication in the Journal, entitled "Description of a new species of fossil Crocodile."

Both communications were referred to the following Committee, Dr. Ruschenberger, Dr. Fisher, and Dr. Le Conte.

Mr. Lea read a letter from Mr. Edward Miller, giving the localities of the coal fossils presented by him this evening.

Mr. Lea also made some remarks on the scenery and geological characters of the White Mountains.

The following resolution was unanimously adopted :—

Resolved, That the thanks of this Society be presented to Dr. E. K. Kane, for the valuable donations made by him to the Museum of the Academy, of specimens of Natural History collected during his recent voyage to the Arctic Regions.

November 25th.

Vice President BRIDGES in the Chair.

The Committee on Dr. Leidy's description of a new species of Fossil Crocodile, from the Miocene of Virginia, reported in favor of publication in the Journal.

The Committee on the two following papers by Dr. Le Conte, reported in favor of publication in the Proceedings.

Synopsis of the species of DONACIA *(Fabr.) inhabiting the United States.*

By JOHN L. LE CONTE, M. D.

*Elytris depressis, triangularibus, truncatis: oculis orbito præditis.

A. Crassiusculæ, depressæ; antennæ articulis 2^{ndo} et 3^{io} subæqualibus: elytra profunde striata; femora dente postice emarginato, vel crenato.

1. D. **magnifica**, splendide violacea, aureo-marginata, thorace quadrato, canaliculato, punctato, pedibus posticis magnis, tibiis incurvis. Long. ·34. Lake Superior.

Mas, femoribus posticis bidentatis, tibiis intus serratis. Femina fem. post. unidentatis, tibiis non serratis. Lec. 1, 236. ?*D. dentata* (Fabr.) Lac. 1, 121.

2. D. **proxima**, nigro-violacea, punctis inauratis, thorace quadrato, vix punctulato, canaliculato, lateribus modice tuberculato, femoribus posticis magnis, tibiis fere rectis. Long. ·35—·43. Lake Superior, and Saratoga, (N. York.)

Mas, tibiis posticis intus serratis, fem. post. tridentatis, dente anteriore parvo, remoto. Femina, tibiis post. non serratis, fem. bidentatis, dentibus approximatis; variat femoribus posticis unidentatis.

Kirby. 225. *D. episcopalis* Lac. 1, 105. *D. quadricollis* var. Say. J. Ac. 5, 282.

B. Longiusculæ, antennis attenuatis, articulo 3^{io} 2^{ndo} multo longiore, thorace vix punctato.

3. D. **congener**, aurea nitida, thorace quadrato, postice canaliculato, subtiliter alutaceo, parceque punctulato, lateribus subsinuatis, angulis non prominulis,

elytris rugulosis, femoribus posticis elongatis, minis incrassatis, antennis fuscis, articulo 3tio 2ndo duplo longiore. Long. ·35. Georgia.

Femina, fem. post. acute unidentatis, tibiis fere rectis: mas latet.

4. D. **lucida**, pernitida, thorace quadrato, obsolete punctulato, subcanaliculato, versus latera vix impresso, his rectis, angulis prominulis, margine basali reflexo, elytris disco vix rugosis, femoribus posticis valde incrassatis, antennis rufis, annulatis, articulo 3tio 2ndo sesqui longiore. Long. ·28—·34. New York, Pennsylvania, Georgia.

Mas, femoribus posticis bi-vel tri-dentatis, dente anteriore remoto, parvo, tibiis intus curvatis, valde serratis. Femina fem. post. dente acuto armatis. Lac. 106. D. *cincticornis* Newman Ent. Mag. 5, 391. Lac. 200. Variat cuprea, violacea, et rufa, thorace nigro.

5. D. **rufescens**, parva, pernitida, rufa, thorace quadrato, postice subangustato, obsolete punctulato, subtiliter canaliculato, lateribus rectis, angulis prominulis, basi margine non reflexo, elytris disco non rugosis, apice late minus subito truncatis, antennarum articulo 3tio 2ndo duplo longiore, femoribus post. valde incrassatis. Long. ·24. Saratoga.

Femina fem. post. acute unidentatis, tibiis rectis. Mas latet. Lac. 112.

6. D. **palmata**, aureo-rufa, nitida, thorace breviusculo, quadrato, alutaceo, parce obsoletissime punctulato, subtiliter canaliculato, tuberculis lateralibus parum distinctis, angulis subprominulis, elytris rugosis, antennarum articulo 3tio 2ndo duplo longiore, femoribus posticis valde elongatis, modice clavatis. Long ·35. Penna., Mass., N. Y.

Mas, tarsorum antic. art. 1mo valde dilatato; femor. post. dente magno lamellato, alteroque antico, minuto, armatis. Femina femor. post. dente lamellato armatis. Ol. Ent. 75, tab. 1, fig. 7; Lac. 98. D. *claudicans* Germ. Mag. Ent. 4, 173. Variat violacea, et rufa, antennis annulatis, femoribus apice fuscis.

7. D. **alutacea**, cupreo-ænea, nitida, thorace alutaceo, opaco, quadrato, parce obsolete punctulato, subtiliter canaliculato, tuberculis lateralibus distinctis, angulis posticis prominulis, margine basali reflexo, elytris rugosis, antennis rufis, articulo 3tio 2ndo duplo longiore, femoribus posticis valde incrassatis, apice nigris Long. ·32. N. York, Penna.

Mas. femor. post. dente lamellato, alteroque antico minuto remoto armatis. Femina femor. post. dente lamellato solo armatis.

Variat elytris violaceis. Præcedente simillima, et antennis brevioribus, thoracis basi reflexa, femoribusque posticis magis incrassatis differt.

8. D. **hypoleuca**, testacea, aureo-micans, thorace subtilissime alutaceo, quadrato, angulis prominulis, canaliculato, margine basali paulo reflexo, lateribus utrinque ad medium transversim leviter impressis, elytris non rugosis, antennarum articulo 3tio 2ndo duplo longiore, femoribus posticis valde elongatis, modice clavatis. Long. ·43. N. Orleans. Dom. Wapler.

Femina femor. post. dente sublamellato armatis, tibiis fere rectis. Mas latet. Lac. 101.

9. D. **piscatrix**, testacea aureo-nebulosa, vix nitida, thorace vix alutaceo, quadrato, angulis posticis prominulis, vix canaliculato, basi marginato, lateribus modice bituberculatis, ad medium profundius impressis, elytris rugosis, apice ro-

tundatim truncatis, antennarum articulo 3io 2ndo plus sesqui longiore, femoribus posticis modice clavatis. Long. ·31—·37. Saratoga, Catskill.

Mas, femor. post. dente lamellato armatis, alteroque minutissime remoto. Femina femor. post. dente lamellato armatis. Lac. 113.

10. D. tuberculata, æneo-cuprea, thorace dense alutaceo-rugoso, postice subangustato, angulis anticis prominulis, canaliculato, lateribus antice valde tuberculatis, elytris valde rugosis, apice vix truncatis, antennarum articulo 3io 2ndo sesqui longiore, femoribus posticis valde incrassatis, fuscis, basi rufis. Long. ·24—·30. Penn. Dr. Melsheimer.

Mas, femor. post. dente acuto, alteroque minuto remoto armatis. Femina, brevior, crassior, femor. post. non dentatis. Lac. 155.

C. Longiusculæ, elytris versus apicem magis subito attenuatis, thorace valde punctato, antennis minus attenuatis, articulo 3io 2ndo paulo longiore.

11. D. pulchella, testacea, aureo-viridimicans, thorace quadrato, dense subtiliter rugoso, angulis prominulis, canaliculato, margine basali subreflexo, disco versus latera vix impresso; elytris profunde striato-punctatis, rugosis, antennarum articulis 2ndo et 3io subelongatis, hoc paulo longiore, femoribus posticis modice incrassatis. Long. ·35. New Jersey.

Mas latet. Femina femor. post. dente acuto armatis.

Habitus omnino D. palmatæ, differt tamen thorace rugoso, antennarum articulo 3 o minus elongato, denteque femorali non lamellato.

12. D. subtilis, depressa, elongata, ænea, thorace dense rugose punctato, quadrato, longiusculo, postice vix angustato, angulis prominulis, plus minusve canaliculato, lateribus fere rectis, vix impressis, elytris triimpressis, interstitiis planis, transversim dense rugosis, antennarum articulo 3io 2ndo sesqui longiore, femoribus posticis minus elongatis, magis clavatis, subtus dente acuto armatis. Long. ·27—·38. New York, and Pennsylvania.

Variat cupreo-ænea; variat quoque elytris non impressis. Specimina minora thorace profundius impresso gaudent. Kunze, (Nov. Act. Halens. 2, 4, 12:) Lac. 147. *D. ænea* Ahrens. Nov. Act. Hal. 1, 3, 21. *D. quadricollis* Say. J. Ac. 5. 282.

13. D. confluens, depressa, elongata, ænea, thorace quadrato, longiusculo, postice subangustato, dense rugose punctato, angulis prominulis, medio ante basin impresso, lateribus, subsinuatis, tuberculo depresso paulo prominulo: elytris antennis pedibusque sicut in D. subtili. Long. 32. Pennsylvania.

A præcedente tuberculis thoracis minus obliteratis, thoraceque non canaliculato, et postice impresso solum differt. Forte varietas mera haberi debetur. *D. confluenta* Say, J. Ac. 5, 293. Lac. 199.

14. D. fulgens, depressa, læte aurea, thorace quadrato, postice non angustato, confertim rugose-punctato, angulis posticis non prominulis, lateribus rectis, vix impressis, elytris versus suturam obsolete biimpressis antennis pedibusque sicut in D. subtili. Long. ·32. Lake Superior.

D. subtili, paulo latior, et thorace non canaliculato differt. Lec. 236.

15. D. porosicollis, valde elongata, cupreo-ænea, antennis pedibusque rufis, thorace subtiliter alutaceo, sat dense punctato, quadrato, angulis prominulis subcanaliculato, lateribus rectis, elytris interstitiis planis, transversim dense

striatis versus suturam depressis, lateribus sensim declivibus, femoribus posticis minus elongatis, subtus dente acuto armatis. Long. ·34. Lake Superior. Lac. 150.

D. Crassiusculæ, elytris apicem versus magis angustatis, thorace punctato tuberculatoque, elytris valde rugosis, antennis minus attenuatis articulo 3^{tio} 2^{ndo} paulo longiore.[*]

16. D. **hirticollis**, obscura, thorace dense punctulato, pubescente, lateribus bituberculatis, femoribus posticis vix unidentatis. Long. ·30—·36. Lake Superior, Saratoga. Kirby, 226; Lac. 203. D. rudicollis. Lac. 108. Variat rufa.

17. D. **distincta**, cupreo-ænea, thorace punctato, quadrato, postice subangustato, angulis prominulis, lateribus modice tuberculatis, canaliculato, margine apicali basalique reflexo, elytris interstitiis planis, versus suturam depressis, biimpressisque, lateribus sensim declivibus, apice minus truncatis, femoribus posticis magis clavatis, dente acuto armatis. Long. ·36. Lake Superior.

Habitus fere D. **proximæ**. ‡Lec. 236. D. *æqualis* ‡Kirby, 225.

*** * Elytra subparallela, apice subtruncata vel rotundata; antennarum articuli 2^{ndus} et 3^{tius} subæquales; femora postica paulo elongata; thorax postice angustatus.**

A. Oculi orbito distincto præditi: elytra paulo convexa.

18. D. **confusa**, minus elongata, capite non toroso, thorace longiusculo subtiliter rugoso, postice subangustato, angulis prominulis, canaliculato, lateribus modice tuberculatis, disco versus angulos anticos profunde impresso, elytris apice truncatis, striis externis profundioribus, subtiliter rugosis, versus suturam valde biimpressis, femoribus posticis nigris, basi rufis, dente lamellato armatis. Long. ·27. Mass., Ohio, and Lake Superior.

Mas, femor. post. dente maiore armatis. Variat violacea, et nigro-ænea; interstitiis elytrorum internis sæpe lævigatis. ‡Lec. 237.

19. D. **torosa**, longiuscula, nigro-violacea, capite valde toroso, thorace alutaceo, parce subtiliter punctato, longiusculo, postice angustato, angulis prominulis, lateribus tuberculatis, sub-canaliculato, elytris vix triangularibus, apice rotundatim truncatis, rugosis, dorso biimpressis, femoribus posticis modice clavatis, dente minus acuto armatis. Long. ·25. Mass. Dr. Harris.

B. Oculi orbito modice distincto præditi: femora postica dente armata; corpus lineare depressum; antennæ articulo 3^{tio} longiusculo.

20. D. **aurifer**, ænea vel læte aurea, antennis pedibusque rufis, illis fusco, annulatis, capite paulo toroso, thorace longiusculo, postice angustato, ruguloso-parceque punctato, angulis vix prominulis, tuberculo laterali parvo, vix prominulo, vix canaliculato, ante basin profunde transversim impresso, elytris apice rotundatis, profunde punctato-striatis, rugosisque. Long. ·26. Lake Superior.

Variat thoracis disco utrinque impresso. ‡Lec. 237.

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[*] This group approaches in form *A. but the species are more convex, and the tooth of the femora is not crenate.

C. Oculi orbito valde obsoleto, vel nullo præditi; elytra parallela convexiuscula, vel apice rotundata, vel vix truncata: femora postica dente armata.

χ. Thorax longiusculis, minus convexus; pedes mediocres, femoribus posticis modice clavatis, basi tenuibus.

22. D. **cuprea**, subelongata, ænea, capite modice toroso, thorace dense ruguloso, postice subangustato, angulis prominulis, late canaliculato, lateribus modice tuberculatis, elytris dense rugosis, vix biimpressis, femoribus posticis dente magno armatis, antennis annulatis articulo 3^{io} 4^{to} breviore. Long. ·25—·33. Lake Superior. Kirby 225: Lac. 203.

Variat ? cyanea, antennis pedibusque totis rufis.

23. D. **dives**, subelongata, ænea, capite non toroso, thorace dense rugoloso punctatoque, postice paulo angustato, angulis prominulis, vix canaliculato, ante basin transversim impresso, lateribus subtuberculatis elytris leviter biimpressis, femoribus posticis dente magno armatis, articulo antennarum 3^{io} tenui 4^{to} æquali. Long. ·31. Lake Superior, specimen unicum.

24. D. **pusilla**, elongata ænea, capite non toroso, thorace confertissime rugoso, postice angustato, angulis anticis subprominulis, canaliculato, ante basin transversim impresso, tuberculo laterali distincto, elytris dense rugosis, biimpressis, impressione anteriore obliqua, antennis crassiusculis, articulis 2—4 gradatim vix longioribus, femoribus posticis dente mediocri armatis. Long. ·23—·26. Lake Superior, Mass. Penn.

Variat viridis et aurea. Say. J. Ac. 5, 293: Lac. 199.

25. D. **emarginata**, capite non toroso, thorace ruguloso, parce-punctato postice paulo angustato, angulis prominulis, late canaliculato, tuberculo laterali prominulo, impressione profunda separato, elytris plus minusve rugosis obsolete biimpressis, femoribus posticis dente magno armatis, ano emarginato, antennarum articulo 3^{io} 4^{to} breviore. Long. ·26. Lake Superior, Mass., and Pennsylvania.

Mas linearis, angustus; femina minus elongata.

Variat aurea, cuprea, cyanea et nigra: antennis pedibusque semper obscuris. Kirby 224: Lac. 202. *D. biimpressa,* Mels. P. Ac. 3, 159. *D. aurichalcea,* Mels. ibid.

26. D. **metallica**, subelongata, nitida, capite non toroso, thorace ruguloso, disco utrinque lævigate, postice regulariter paulo angustato, angulis anticis prominentibus, tuberculis lateralibus vix prominulis, canaliculato, ante basin transversim profunde impresso, elytris rugosis, femoribus posticis dente parvo armatis antennarum articulo 3^{io} 4^{to} vix breviore. Long. ·23—·26. Pennsylvania.

Mas antennis longioribus, femorum dente distincto: femina antennis brevioribus, femorum dente obsoleto. Variat aurea, ænea, viridis et æneo-nigra, antennis plus minusve rufis. Ahrens Nov. Act. Hal. 1, 3, 33: Lac. 189. *D. nana* Mels. P. Ac. 3, 160.

27. D. **gentilis**, longiuscula, nitida viridi-ænea, capite non toroso, thorace ruguloso, disco utrinque lævigato, postice magis angustato, angulis anticis prominentibus, tuberculo laterali prominulo, canaliculato, ante basin transversim im-

presso, elytris rugosis, femoribus posticis dente parvo armatis, antennarum articulo 3io 4to fere æquali. Long. ·24. Pennsylvania.

Femina latet.

28. D. **flavipes**, subelongata, ænea, vel nigro ænea, capite subtoroso, thorace minus dense rugose-punctato, postice angustato, angulis prominulis, profunde canaliculato, tuberculo laterali prominulo, ante basin valde impresso, elytris parcius rugosis, femoribus posticis dente magno armatis, pedibus antennisque plus minusve rufis, his breviusculis, articulo 3io 4to vix breviore. Long. ·33. Mass. Lake Superior and Pennsylvania. Kirby, 223: Lac. 201.

β. Thorax convexus: pedes breves crassi, femoribus posticis ellipticis, basi non attenuatis, subtus dente valido armatis.

29. D. **iucunda**, subelongata, cupreo-ænea nitida, thorace punctato, cordato, angulis vix distinctis, tuberculis lateralibus obsoletis, profunde canaliculato ante basin valde impresso, elytris profunde seriatim punctatis, vix rugosis, pedibus antennisque rufis, his crassiusculis, articulo 3io 4to vix breviore. Long. ·27. Lake Superior. ‡Lec. 237.

30. D. **Kirbyi**, subelongata, cupreo-ænea, nitida, thorace parce-punctato, cordato, angulis rotundatis, tuberculo laterali distincto parum prominulo, subtiliter canaliculato, ante basin valde impresso, elytris interstitiis planis vix rugosis, ante medium impressis, pedibus antennisque rufis, his articulo 3io 2ndo sesqui longiore 4to paulo breviore. Long. ·28. Georgia.

Variat tuberculo thoracis laterali minus distincto. Lac. 201. D. affinis‖ Kirby. 224.

31. D. **sulcicollis**, brevis, thorace parce subtiliter punctato, cordato, angulis paulo prominulis, tuberculo laterali paulo prominulo, canaliculato, ante basin valde impresso, elytris profunde seriatim punctatis, vix rugosis, ante medium obsolete impressis, pedibus antennisque rufis, his articulis 2ndo et 3io æqualibus, 4to vix brevioribus. Long. ·33. Mass., Maine, Pennsylvania, Drs. Melsheimer and Harris.

Præcedente brevior, thorace latiore: mas femina paulo angustior; variat cuprea viridis, et ænea, tuberculis thoracis sæpe obsoletis. Lac. 186. *D. metallica*‖Say. J. Ac. 5, 283.

***Elytra parallela, vix truncata; antennæ articulo 2ndo breviore, thorax postice angustatus: oculi orbito præditi.

32. D. **femoralis**, minus elongata, ænea, pedibus rufis, vel fuscis, capite toroso, thorace subtiliter rugoso: parce punctato, longiusculo, angulis prominulis, vix canaliculato, ante basin impresso, lateribus subtuberculato, elytris convexis, profunde seriatim punctatis, rugosis, antennis annulatis, articulis 3io 4toque æqualibus, 2ndo sesqui breviore. Long. ·26. Lake Superior.

Mas subelongatus, femor. posticis dente acuto armatis: femina femor. post. muticis. D. **cupreæ**, et **diviti** sectionis præcedentis similis, oculis tamen orbito præditis valde distincta. Kirby, 223: Lac. 200.

****Elongatæ, oculis vix prominulis, orbito nullo; elytra convexa apice truncata: antennæ tenues articulo 2^{ndo} breviore.

33. D. Harrisii, elongata, ænea, capite vix toroso, thorace longiusculo, dense rugose punctato, postice vix angustato, angulis prominulis, subtiliter canaliculato, ante basin impresso, tuberculo laterali vix prominulo, impressione postice definito, elytris parallelis, versus apicem oblique angustatis, valde seriatim punctatis; parce rugosis, antennis annulatis, articulo 2^{do} reliquis duplo breviore. Long. ·42. Penn. rarissime.

Mas femoribus posticis incrassatis ellipticis dente acuto armatis.

Femina femor. posticis paulo incrassatis, muticis. D. inermis Harris. MSS.

Species singularis, oculis parvis habitu Statyræ (Lagriarum) subsimilis.

Species mihi ignotæ.

34. D. carolina Lac.	in *B inscribendum.
35. D. militaris Lac.	*B.
36. D. erea Lac. 148.	*C. prope D. subtilum.
37. D. pallipes Lac. 149.	**A. prope D. confusam.
38. D. assimilis Lac. 153.	*C ?
39. D. vicina Lac. 154.	*C ?
40. D. chalcea Lac. 188.	**C. β.
41. D. parva Lac. 190.	**C. β.
42. D. binodosa Germ. Lac. 195.	**C. β.
43. D. æqualis Say. J. Ac. 3, 428.	**C. χ. prope D. emarginatam.
44. D. rufa Say. J. Ac. 5, 283.	**C. χ ?

Species dubiæ, vel descriptione non cognoscendæ.

D. fulvipes Lac. 192.	**C. χ. =?D. pusilla Say.
D. cataractæ Newman Ent. Mag. 5, 391.	**C.
D. rugifrons Newman, ib.	**C. =D. emarginata Kirby.
D. cuprea Mels. P. Ac. 3, 158.	*B. =?D. tuberculata ♂.
D. indica Mels. ib.	*** =?D. femoralis Kirby.
D. rutila Mels. P. Ac. 3, 159.	*B. =? tuberculata ♀.

Works cited in abbreviation.

LAC. Monographie des Colèoptéres subpentamères, par Th. Lacordaire. Vol. 1.

LEC. Le Conte in Agassiz, Lake Superior. Boston, 1850.

MELS. Melsheimer in Proceedings of the Academy of Natural Sciences.

KB. Kirby in Fauna Boreali Americana. Vol. IV.

Zoological Notes.

By JOHN L. LE CONTE, M. D.

During a visit to Panama, in December, 1849, I had frequent occasion to observe many animals of such frail texture, as to render impossible any attempt to preserve them, and took many notes respecting their appearance and habits. By an

accident, my manuscript while being sent home, was rendered nearly illegible, and I am now able to recover only a few fragments of it. I have thought that the animals observed, were of sufficient importance to warrant the publication of my notes, although not relating to the subjects of my own special researches.

I had intended to prefix a few observations respecting the geographical distribution of organic beings on the Isthmus, but having recently received through the kindness of friends, collections which serve to make a more minute comparison between the production of different parts of the year, I will postpone for the present, the discussion of the phenomena observed, and merely state a single fact which appears to me of great importance, in considerations regarding the limit of the effects of physical causes. During the month of December, I labored assiduously to procure a set of the Coleoptera of the vicinity of Panama, and was surprised on looking over my collection, to find a complete absence of the genera known to be confined to the tropics. In fact, with the exception of half a dozen Chrysomelines, there was not a single species which might not have come from a region far north of the tropic. It is known that in the southern part of the temperate zone, the Carabica, Brachelytra, water beetles, &c., which first appear in the spring at northern localities, are most abundant in winter, and this would be naturally explained by the fact that the temperature in that season is most nearly akin to to that of the regions in which they flourish best. But it is a little alarming for the doctrine of physical causes, to find that the same arrangement in the appearance of species, is kept up in a region where climate can have nothing to do in producing these phenomena.

OPHIOLEPIS *Müll.*

1. O. annulata, disco squamis minimis imbricatis dense tecto, radialibus 10 paulo majoribus, distantibus; brachiorum squamis dorsalibus hexagonis, latitudine sesqui brevoribus extrorsum angustatis, ventralibus subquadratis, extus subemarginatis; scutis buccalibus utrinque subacutis latitudine non longioribus, postico umbone depresso, foraminisque marginalibus 8 distincto: brachiis dorso fusco-annulatis, disci diametro 7^{ies} longioribus. Long. 4—5½ unc.

Color grayish yellow; disc brown with closely approximated pale spots; arms seven times as long as the diameter of the disc, with every fourth dorsal plate dark; the scales of the disc are very small and imbricated, the radial ones scarcely larger, and widely separated. The oral plates are rounded on the lateral angles, and are not surrounded with papillæ; but from the apex of each, run two rows of small papillæ, which follow the inflexed margin of the fleshy part of the disc. The oral papillæ are distinct, four on each side. The tentacular pores have each two small scales, the spines are arranged in three rows, their length is equal to the diameter of the arms. This species apparently resembles O. reticulata Muller, 95. *Ophiura reticulata* Say (J. Ac. 5, 148,) but the spines are longer.

2. O. geminata, disco squamis minimis imbricato, scutis radialibus magnis, elongatis, per paria valde approximatis, brachiorum squamis dorsalibus latitudine duplo brevioribus, intus subangulatis, ventralibus transversis, subpentagonis; scutis buccalibus rhomboideis, angulis acutis, angulo aborali truncato: scuto postico umbone nullo, foramine unico apicali notato, brachiis dorso maculatis, disci diametro 6—7^{ies} longioribus. Long. 3—4 unc.

Pale gray; arms marked with scattered brown spots. Oral plates not surrounded with papillæ, angles acute, the distal one truncate; the posterior plate is distinguished by only a single marginal foramen. The inflexed margin of the disc is not margined with papillæ as in the preceding species: the oral papillæ are large, and there are only three on each side: the tentacular pores have two small oblong scales: the spines are in three rows, and their length is only one half the diameter of the arms: the spines of the middle row are rough. This species seems very similar to O. elongata Mul. 95. *Ophiura elong.* Say J. Ac. 5, 146.

3. O. **simplex**, subtus pallida, supra obscura, disco scutis mediocribus, granulatis, subimbricatis tecto, radialibus paulo maioribus modice approximatis, interstitio scutis duobus; brachiorum scutis dorsalibus latitudine duplo brevioribus, lateribus rotundatis, ventralibus quadratis angulis rotundatis, squama tentaculorum unica; spinis lateralibus serie 5-plici sitis, scutis buccalibus taansversis, subrotundatis, postico foramine apicali notato: brachiis disci diametro 7ies longioribus. Long. 4 unc.

Pale beneath, above blackish brown; arms marked with a few paler bands; the scales are all finely granulated, the radial ones separated by two plates. The oral plates are not surrounded with papillæ, and on each side there is only a single oral papilla; the tentacular pores are protected with single scales, the second scale being spiniform and forming the lowest of the five series of lateral spines, the longest of which is scarcely equal to the diameter of the arms.

4. O. **hispida**, albicans, maculis parvis nigricantibus supra adspersa, disco squamis minutis imbricatis tecto, spinulisque brevissimis dense hispido: scutis radialibus elongatis, approximatis; brachiorum scutis dorsalibus latitudine triplo brevioribus extorsum subrotundatis, ventralibus quadratis, transversis, angulis rotundatis, spinis lateralibus serie triplici sitis, longitudine dimidium brachiorum diametri æquantibus; scutis buccalibus rhomboideis, postico foramine apicali notato, brachiis disci diametro 10ies longioribus. Long. 6 unc.

Only a single specimen found very distinct by the hispid surface of the disc. The oral plates have on each side 3 or 4 tolerably large papillæ. The tentacular pores have two small elliptical scales.

Besides the species described above, a large one was given me by Dr. Duchassaing, which strongly resembles O. serpentaria, from the West Indies. The dorsal plates of the arms were a little more transverse, and the buccal plates more rounded. Not having had sufficient opportunity for examining whether these should be considered as specific differences, I forbear for the present expressing an opinion on this specimen.

OPHIOTHRIX, Mul.

O. **spiculata**, supra obscura, subtus pallido-maculata, disco confertim spiculato, spiculis echinatis, spinis maioribus versus medium intermixtis, scutis radialibus magnis, triangularibus, granulatis, rarius spiculatis, angulo brachiali albicante, per paria approximatis, brachiorum scutis dorsalibus sub-carinatis vix transversis, angulis lateralibus acutis, margine externo fortiter rotundato, ventralibus quadratis sub-transversis, lateribus rotundatis, spinis lateralibus serie 7plici sitis, serie superiore vix breviore; oris scutis transversis, angulis lateralibus rotundatis, externo acuminato, brachiis diametro disci 6ies longioribus. Long. 4—5 unc.

This species is very variable as regards the closeness of the numerous short serrate spiculæ which clothe the disc; the radial plates are more or less distinct, sometimes nearly free from spiculæ; they are large and granulate, the angle which is above the base of the arm nearly touches the corresponding angle of the next plate, and is whitish. The oral plates are wider than long, with the oral angle distinct and the lateral angles rounded; the apex is acuminate. The inner series of plates bounding the oral plates is very narrow. The brachial spines are arranged in 7 rows, the two inferior ones being the shortest; the others are about twice as long as the diameter of the arm, and serrate from base to tip; they are transparent, with the apex frequently black. The body is dark fuscous above, and pale beneath; every fifth ventral plate on the arms is sometimes red or brown.

Some of the varieties of this species may possibly be Ophiothrix ciliaris Mul.; the young are pale colored, and very like the adults; the plates which margin the oral plates are relatively larger, being one half the size of the latter.

PLANARIÆ.

Glossostoma. n. g.

Body vermiform. Head continuous with the body. Eyes 10—16 in each side of the head. Mouth subterminal, with a retractile tentacle on each side. Intestinal tube ramose. Marine.

1. G. nematoideum, pallide flavicans, pellucidum, filiforme, ocellis utrinque 10—16 minutissimis; cæcis intestinalibus brevibus obtusis. Long ·1. unc.

This animal has so little the appearance of a Planaria, that I long hesitated to refer it to this genus; but on careful examination, I could perceive no distinct character by which to separate it. The mouth is situated near the end, and on the inferior surface of the body; it is furnished on each side with a small blunt retractile appendage. The ocelli are very minute, and situated on each side in an oblong group, about half a line from the extremity, the abdominal cœca are large and blunt.

Elasmodes. n. g.

Body dilated, flat. Head continuous with the body, without appendages. Ocelli 5 on each side. Mouth antero-inferior, œsophagus ventral; intestinal tubes reticulated, radiating. Marine.

1. E. discus, latissima, planissima, pallida, pellucida, tubulis intestinalibus reticulatis, tenuibus, e ventre oblongo radiantibus, ocellis utrinque 5 valde approximatis ab apice remotis. Long. ·31, lat ·25, unc.

Very flat and thin, pellucid, only rendered darker in the middle by the slight color of the intestinal tubes, which are very fine and numerous, radiating from a central cavity which is five times as long as wide. Ocelli five on each side, closely approximated; groups separated by a space equal to one-third the distance from them to the margin or apex.

Typhlolepta? extensa, planissima, supra purpurea vel brunnea, margine pellucido, tubulis intestinalibus tenuissimis; numerosissimis, e canali tenui orientibus. Long. 1·25, lat. ·32 unc.

Less dilated than the last, but equally thin; owing to the immense number of small intestinal tubes the color appears uniform, the central tube extends to within two lines of each extremity. There are no visible ocelli.

Zoantha Cuv.

Z. **Danai**, pallide purpurascens, tentaculis brevissimis, crassitie non longioribus, disco viridi, extrorsum purpurascente, ore parvo purpureo-marginato, tentaculis externis basi pallidis. Diam. disci ·25. unc.

Remarkable for the shortness of the tentacula, which, when fully extended, are scarcely longer than the diameter of their base; they are arranged in two series; those in the outer series are pale at the base. The disc is radiately rugose, brilliant green, margined both internally and externally with purple. The root is broad, the animals closely associated, capable of extending 1·25 inches.

I have named this species as a feeble tribute of respect to the philosopher, to whom we owe the first rational classification of Zoophyta.

The Committee on the following paper, by Dr. Leidy, reported in favor of publication.

On some American fresh-water Polyzoa.

By Joseph Leidy, M. D.

Since I described several species of fresh-water ciliated polyps in the last number of the Proceedings, we have received the Report of the British Association for 1850, in which I find a very able and complete report upon "the present state of our knowledge of the fresh-water Polyzoa," by Prof. Allman, M. D.

Prof. Allman has very correctly applied the term Polyzoa, of Thompson, to the ciliated polyps, because it had been employed prior to the application to them of the term Bryozoa, of Ehrenberg.

Prof. A. has also invented some very happy terms, applicable to different parts of the structure of the Polyzoa. Thus for the common dermal system and solid basis of a colony of polypes he uses the word Cœnœcium. The external tunic of the latter he calls the Ectocyst, and that lining the tubes the Endocyst, and the disk supporting the tentaculæ is named the Lophophore.

According to the characters given to the genus Cristatella, *Cuv.*, the species which I described in the last number of the Proceedings as C. magnifica, cannot belong to that genus, as I then suspected; for Cristatella has a "common flattened disk adapted for locomotion," nor can it belong to Lophopus, *Dumort*, for although this has its base of attachment fixed, yet the ova of the animal have no marginal spines, and it therefore must form a distinct genus between Cristatella and Lophopus, with the following diagnosis:—

PECTINATELLA, *Leidy*.

Cœnœcium massive, gelatinoid, hyaline, fixed, investing bodies. Orifices arranged in irregular lobate areolæ upon the free surface. Lophophore crescentic. Ova lenticular, with an annulus and marginal spines.

1. Pectinatella magnifica, *Leidy*.

Cristatella magnifica, *Leidy*. Proc. A. N. S., V. 265.

Remark.—Found only in shaded situations, always incrusting dead branches of trees.

PLUMATELLA, *Lamarck.*

1. Plumatella diffusa, *Leidy.* Pr. A. N. S., V. 261.

2. Plumatella nitida, *Leidy.*

More robust than the preceding, color light olivaceous brown, consisting usually of only a few branches; tubes amphoræform, without a keel, smooth or transversely corrugated near the orifices which are entire. Length of the articuli one line, breadth one-fourth of a line. Polyp has the same form as in the preceding, and also the same number of tentaculæ.

Habitation.—Found with the preceding.

Remarks in connection with Plumatella.—Almost every stone, in many parts of the Schuylkill river, particularly below the dam at Fairmount, has adhering to it numerous eggs of Plumatella in short rows, which upon superficial inspection resemble prismatic crystals of some mineral.

PALUDICELLA, *Gervais.*

1. Paludicella elongata, *Leidy.*

Cœnœcium attached throughout, or attached by only a few articulations, the remainder floating; delicate, very much branching, colorless or ambreous, shining. Articulations very long, claviform; tubes of exit variable in length, placed close to the distal extremities; orifices entire.

Polyps with sixteen tentaculæ arranged in the form of an inverted cone. Stomach brown in color.

Measurements.—Articuli of cœnœcium to 1 line in length, by 1-133d in. in breadth at the dilated part, and 1-285th in at the narrow part.

Habitation.—On the under side of stones in the Delaware and Schuylkill rivers. It is found in vast profusion below the dam of the Schuylkill at Philadelphia.

Besides the foregoing, I have observed what I suspect to be the cœnœcium of a new genus of Polyzoa, although I have never been able to detect the polyps if such exist. It resembles when viewed by the naked eye a very minute Isis hipparis, or the corraline Amphiroa corymbosa. Under the impression that it belongs to the Polyzoa, it may be characterized as follows.

URNATELLA, *Leidy.*

Cœnœcium membrano-corneous, consisting of several divergent, unbranching filaments, attached by a common basis. Filaments consisting of a series of urn-shaped articulations, with a solid axis passing through the whole, and having to each articulation one, occasionally two, tubes of exit with the orifices expanded, placed inferiorly near their commencement.

Urnatella gracilis, *Leidy.*

Usually three to five filaments arising from a common basis of attachment. Articulations up to nine in number to a filament, very regularly urniform except the distal two which are inverted pyriform, decreasing in breadth from the first to the last. Body portion of each urniform articulation yellowish white, translucent, with fine transverse bands or striæ, and punctæ of brown; neck or pediculate portion, columnar, transversely contorted, expanded at base, black. Tubes of exit one, occasionally two, to each articulation except the last, which has none, placed at the lower part of the body portion of the articulation, and curving upwards, with the orifice expanded and horizontal or nearly so, amber colored with darker punctæ. Interior axis white, opaque.

Measurements.—Length of a filament of 9 articulations 1 line; first articulation 1-140th in. in breadth, last 1-220th in.

Habitation.—Found growing on the under side of stones in the same situations as Plumatella and Paludicella, in the river Schuylkill below the dam, at Philadelphia, below low water mark.

Remarks.—A very beautiful and graceful form, as before mentioned resembling a minature Isis hippuris.

The cœnœcium is hard and resistant, and has no carbonate of lime entering into its composition as might probably be suspected. When compressed, the axis or interior central, white, opaque column is squeezed out of the ruptured articulations in the form of transparent colorless oleoid granules, from the 1-32,000th to the 1-4,000th of an inch in diameter.

I have frequently found this enigmatic body, which I suspect to belong, as previously stated, to a Polyzoon, but I have never been able to detect the polyp. The filaments appear never to go beyond nine articulations, nor have I ever found more than five filaments to a group.

Reference to the Figures.

All the figures are much magnified.

Fig. 1. Two articulations in outline of Paludicella elongata, with a terminal young articulation.

Fig. 2. One articulation of P. elongata; with a second terminal young one.

Fig. 3. Urnatella gracilis, with three of the filaments cut off from the expanded base.

Fig. 4. A single articulation of U. gracilis with two tubes of exit.

Fig. 5. A separated articulation of U. gracilis under compression, with the escape of oleoid granules below from the central axis.

The Corresponding Secretary read a Report, embracing the last six months, which was adopted.

Dr. Fisher offered the following, which was adopted:—

Resolved, That a Committee of three members be appointed to inquire into the expediency of enlarging the Hall of the Academy, so as to furnish greater accommodation for the Museum and Library, and to report a plan for the same, together with an estimate of the expense, and to report at the annual meeting, December 30th, next.

Dr. J. C. Fisher, William S. Vaux, and Dr. Bridges, were appointed the Committee under this resolution.

The following Resolution was also adopted:—

Resolved, That the privilege of endorsing tickets of admission to the Museum on public days, be granted to Mrs. Emily Taylor, widow of Richard C. Taylor, late a distinguished member of this Institution, and that she be authorized and invited to visit at all times the Museum and Library.

ELECTION.

Robert A. Caldcleugh, Esq., of Philadelphia, was elected a *Member* of the Academy.

December 2d.

Vice-President Bridges in the Chair.

Letters were read :—

From Dr. E. K. Kane, acknowledging the receipt of a copy of the resolution of thanks to him, adopted at a late meeting of the Academy, and stating his intention to make also a donation of a small collection of plants from a high Northern latitude, (76° 15′.)

From the Royal Academy of Sciences of Stockholm, dated November, 1849, and October, 1850, acknowledging the receipt of several numbers of the Proceedings and Journal of this Academy.

From the same, of same dates, transmitting the Transactions of the Academy, Parts 1 and 2 for 1848, and of the Bulletin for 1849, and also a medallion in copper of the late Jacob Berzelius.

From the Royal Academy of Sciences of Madrid, transmitting Part 1, Vol. 1, third series of its Memoirs, and a Resumé of its transactions for the years 1848–49. Also inviting experimental essays on the subject of Nitrification for a *Concours*, and announcing that prizes would be awarded for the best essays.

December 9th.

Vice-President Wetherill in the Chair.

Communications were read from :

Mrs. Emily Taylor, dated Philadelphia, December 6th, 1851, returning acknowledgments for the Resolution adopted by the Academy, conferring the right of endorsing tickets of admission to the Museum.

And from Mrs. Rebecca Morton, dated Philadelphia, Dec. 8th, 1851, returning thanks for copies of Dr. Meigs' Memoir of the late Dr. Morton, presented to her by the Academy.

Dr. David Dale Owen read a paper intended for publication in the Journal, entitled "Description of a new Mineral and a new Earth." Referred to a Committee, consisting of Mr. Vaux, Dr. C. M. Wetherill, and Dr. McEuen.

Professor Horner read a history of some cases of Articular Inflammation of the Knee, treated successfully with Urate of Ammonia. Referred to Dr. Leidy, Dr. Hallowell, and Dr. Rand.

Professor Horner introduced to the Society Monseigneur Demers, Bishop of Vancouver, who gave much interesting information respecting the habits, language, and traditions of the Indian Tribes of Oregon, forty-one of which, out of seventy-one, had been visited by him. He also offered the hospitalities of the Mission to which he was attached, to such members as might be visiting that region, and expressed his wish to further the objects of the Society.

Professor Horner exhibited some specimens of Adipocire, fragments of human bones, and mould, obtained from a cemetery which had been in use for upwards of a century, and from which the remains are now being removed. One specimen of crumbling bone was proved to be more than one hundred years old.

He also read the following by Mr. John Rommel, Jr., giving some particulars in relation to the subject.

"The cemetery from which the specimens were obtained has been used for more than a century.

The ground for the depth of ten or twelve feet is of ordinary yellow clay, below which it is of a gravelly nature. In the majority of places it is very hard and dry, but in some places it is quite moist, and in one or two places actually swampy. The workmen in removing the remains, in order to save time, dig a trench about eight feet wide and about twenty feet long, then the following eight feet are undermined, and this is thrown into the dug trench; hence there is necessarily a great confusion as to the dates of the remains.

But comparatively few remnants of coffins were found, but an immense number of bones still remained.

In situations which were very free from moisture, no vestige of bone or coffin was found after a lapse of twenty to twenty-five years, and even in less time; but as the ground became more moist, the preservation was more complete; and where it was swampy, the preservation was almost perfect; pieces of shavings from the coffin (originally left there by the undertaker) being found, which had been interred above forty years, and the soft parts adhering to the bones, in the shape of Adipocire. I saw a corpse removed (having been interred thirty-five years) which was in an almost complete state of preservation: the countenance was so perfect, that the friends of the deceased might easily have recognized him; the garments were in a good state, as was also the coffin.

In removing the earth, the workmen would probably strike a skull; the ground being then carefully removed, the perfect skeleton was displayed, all the bones being in their respective places, as if the anatomist had carefully arranged them previous to making an artificial skeleton; no ligament or muscle to be seen.

The latter were not seen in some instances in five or six years after burial. Accompanying the bones, I always observed some black matter, which was probably the remains of the coffin; and where no bones at all were found, about a shovel full of this black earth was seen, indicating the spot where the individual had lain.

The Bones.—There was of course every variety of sizes, and in all stages of preservation; sometimes I only saw the shaft of the tibia, which had no other mark of distinction than the spine; sometimes the femur, known only by its comparative magnitude, and by the linea aspera; some were crumbled to small pieces, and the slightest handling reduced them to powder. They were nearly all brown or blackish, many looking as if they had been smoked.

The Odor.—The odor arising from the graves was not perceived unless in close contact with the remains, and then it was but faint and slightly disagreeable, and when the air came in contact with it, it was immediately dispelled. The bones, after being removed, had an earthy odor, and not at all disagreeable.

The Skull.—In all instances where the sutures of the skull had not been completely obliterated previous to death, by old age, &c., I observed the partial or complete separation of the bones, in many instances lying side by side, completely seperated, and in good condition.

The Hair.—I had expected to find much more hair than I did; some few specimens were found well preserved; one belonged to a young man, and was as smooth, and in as fine a state, as if the hair-dresser had just left him, but he had not been buried many years. In the majority of cases where it was found it was only in small quantities, and was torn with the utmost facility.

The stature of many of the individuals was remarkable, judging from the bones, many were over six feet, and many over six feet five inches in size. Quite a number of iron handles (belonging to the coffins) remained, either in a state of partial or complete oxidation, and remains of breast plates were also found, but the engraving was totally unintelligible.

The interring of jewelry does not appear to have been fashionable in those days, or else the workmen overlooked it; only a piece of one ear-ring was found, and that was as highly polished as if it had just come from the hands of the jeweller.

From the discrepancy regarding dates, these are all the facts which I have been able to obtain; but having heard from good authority that a similar enterprise will be undertaken shortly, I am in hopes I shall be able to obtain more facts on this interesting subject."

Dr. Leidy exhibited a number of fossil reptilian and mammalian remains, which he characterized verbally as follows:—

Cimoliasaurus magnus, *Leidy*. A saurian established upon thirteen vertebræ, apparently from one individual, found in the Green Sand of New Jersy, and preserved in the Museum of the Academy. Two of the vertebræ are posterior dorsal, the remainder lumbar. All of them have the processes broken off, excepting one of the dorsal, which still preserves its transverse processes nearly entire.

The vertebral bodies are broader than they are long, being compressed cylindroidal in form, gradually expanding from their middle to the angular edge of the articular surface. The latter are slightly concave, about one-half the depth of those of Poecilopleuron Bucklandii, *Deslch.*, with the centre a little prominent and becoming slightly convex towards the edges.

The transverse processes remaining in one of the specimens of dorsal vertebræ are prominent, thick, irregularly cylindroid tubercles, projecting from the middle of the side of the vertebral body, with an oblique articular facet for the rib.

In the lumbar vertebræ the transverse processes incline downwards from the lower part of the bodies laterally, as in Mososaurus.

Measurements of the largest dorsal vertebra.

Length of body,	2¾ inches.
Breadth " at articular faces,	4½ "
Heighth " " "	3½ "
Depth of articular faces,	2 lines.
Length of transverse processes,	1 inch.
Diameter " "	1½ "
Breadth of spinal canal,	1 "

Measurements of the smallest lumbar vertebra.

Length of body,	2 inches.
Breadth "	2¾ "
Heighth "	2 in. 10 lines.
Depth of articular surfaces,	2½ lines.

Discosaurus vetustus, *Leidy*. A saurian founded upon a single vertebra with the processes broken away, obtained by Mr. Joseph Jones from the cretaceous formation of Alabama.

The body is about as large, and has a general resemblance to that of Plesiosaurus pachyomus, *Owen*, represented in fig. 3, tab. xx., of the Monograph on the fossil reptiles of the Cretaceous Formation. It differs most remarkably from the vertebral bodies of Plesiosaurus, in the articular faces forming distinct concave disks, separated from the body by a constriction or short neck. The body is relatively much broader in relation to its length than in Plesiosaurus. The specimen is a cervical vertebra. Upon each side it has a deep, concave, transversely oval, costal pit, with a very prominent, sharp border.

Measurements.

Length of body,	2 inches.
Breadth "	2¾ "
Heighth "	
Depth of articular surfaces,	2½ lines.
Transverse diameter of costal pit,	1¾ inches.
Vertical " "	11 lines.
Depth of costal pit,	4 "

The fragment of a vertebra described by Dr. Dekay in the Annals Lyceum of Nat. Hist. of New York, Vol. 3, p. 165, and represented in Pl. 3, fig. 11, from the Green Sand of New Jersey, and observed by that gentleman to be allied to the Plesiosaurus, probably belongs to the Discosaurus vetustus.

The vertebra described by Dr. Harlan in the Journal of this Academy, Vol. 4, p. 232, and represented in pl. xiv. fig. 1, was referred to the Plesiosaurus. The specimen was from the Green Sand of New Jersey, and is preserved in the cabinet of the Academy. It does not belong to a saurian, but is a posterior dorsal vertebra of a cetacean allied to the Delphinus. The vertebral body is relatively twice the length of what it is found to be in the latter. The transverse process is also relatively short and broad; at its extremity it has an articular facet for the head of a rib.

The vertebra is probably the type of a form existing in a distinct genus of ancient Cetacea, for which I propose the name **Priscodelphinus**. The species I dedicate to the memory of Harlan, under the name of PRISCODELPHINUS HARLANI, *Leidy*.

In the collection of the Academy there are preserved two caudal vertebræ of a young cetacean, from the Green Sand of Jersey. These specimens are larger than the dorsal vertebra just described, but from the length of their bodies, and the width antero-posteriorly of the neural arch, I suspect them to belong to the same genus of the latter, but a larger species, for which I propose the name PRISCODELPHINUS GRANDÆVUS, *Leidy*.

Measurements of the posterior dorsal vertebra of P. Harlani.

Length of body, ...	2 inches.
Breadth of articular surfaces, . . .	8 lines.
Length of transverse process, . . .	1½ inches.

Measurements of two caudal vertebræ of P. grandævus.

Length of body, ...	2½ inches.
Breadth of epiphysial surfaces, . . .	2¼ "

The two species of Priscodelphinus possess more than ordinary interest, from their being the first mammalia which have been discovered in the cretaceous formations.

CROCODILUS FASTIGIATUS, *Leidy*. Established upon a tooth which Mr. T. Conrad informed me was obtained by Mr. Smiley from the Eocene formation of Virginia. The specimen is about the size of that of Crocodilus champsoides, *Owen*, represented in fig. 11, tab. v., of the Monograph of the fossil Reptilia of the London Clay by Prof. Owen. The crown has about the same length as in the last mentioned species, but is more robust, more curved and pointed, with more numerous ridges but not so coarse, and between the larger are from one to four fine corrugated linear ridges. The fang is also a little more robust. The enamel is jet black, shining. The osteo-dentine is thick, dark brown with a resinous lustre.

Measurements.

Length of crown, ...	9 lines.
Diameter at base, ...	4 "

Dr. L. further called the attention of the members to some very remarkable fossil remains of mammalia from Nebraska, belonging to the collection of Dr. D. D. Owen.

The fossils consisted of a nearly entire cranium of Rhinoceros occidentalis, two crania of Oreodon priscum, a large portion of the face of Archæotherium Mortoni, which has true molars resembling those of Chœropotamus and Hyracotherium, and a very perfect turtle, which was characterized as follows.

EMYS OWENI, *Leidy*. Approaches the genus Testudo in many of its characters. Carapace very convex; marginal plates nearly vertical; costal plates alternately broad and narrow. There are nine vertebral, nine costal, and eleven marginal plates each side of the pygal and nuchal.

	Straight.	Curve.
Length of Carapace, . .	11 inches.	13 inches.
Breadth " . .	8½ "	14 "
Heighth " . .	5½	

The species is named in honor of Dr. D. D. Owen, of New Harmony, Indiana, who has contributed this as well as numerous other objects to Palæontology.

Dr. Owen made the following observations on the locality of the fossils from the "Mauvaises Terres" of Missouri.

The region of country where the remains of the fossil mammalia exhibited were procured, is a part of the district known to the French Canadian voyageurs of the Upper Missouri as the Mauvaises Terres or Bad Lands, which lie between the Missouri river and the base of the Black Hills, and the waters of the Shagea and Moreaux. It presents the appearance of the great bed of some ancient lake, the base of which is some three hundred feet below the general level of the wide expanse of prairie which rises in terraces towards the Rocky Mountains.

This depressed valley of the Mauvaises Terres appears more a valley of excavation than of subsidence, as is proved by the multitude of isolated pinnacles, mounds, and curious outliers, which, having resisted the denuding forces, stand in all imaginable fantastic shapes, memorials of the excavating forces that have been at work. These rise to the height of from two to three hundred feet, and form between them a complete labyrinth of intricate passages stretching as far as the eye can reach, that soon bewilder the incautious explorer.

These remarkable insulated peaks, like the sides of this great valley, are composed of horizontal beds of indurated clays, marly strata, and thin beds of quartz ore conglomerates, all probably belonging to the age of the Eocene tertiary, and are the receptacles of those unique fossil remains, presenting a most extraordinary assemblage of pachyderms, some of which seem to have combined the at present anomalous character of ruminants, associated with a few carnivorous animals.

The skulls, bones, and fossil fresh-water turtles are mostly found on mounds of white, pale flesh-colored, and light grey and greenish marly and argillaceous earths, the debris of denuded strata. The Palæotherium bed lies towards the base of the section, from ten to twenty feet above the bottom of this great valley.

Further details concerning this curious country and its ancient fauna, together with a section of the strata composing it, will be found in the forthcoming geological report of the North West.

The Committee on Proceedings announced that Dr. Meigs' Memoir of the late Dr. Morton was published, and was now ready for distribution.

On motion of Dr. McEuen it was

Resolved, That the thanks of the Society be presented to M. Desmers, Bishop of Vancouver, for his offer of the hospitalities of his Mission to the members, and of his assistance in furthering the objects of the Society, and that a Committee be appointed for the purpose of seconding his proposal.

Committee, Dr. McEuen, Dr. Horner, and Dr. Leidy.

December 16th.

Vice-President WETHERILL in the Chair.

A letter was read from Dr. D. Leasure, dated Lewistown, Pennsylvania, December 5th, 1851, announcing the transmission of the skin of an adult American Black Bear, for the Museum.

Dr. Le Conte presented for publication in the Journal, the conclusion of his paper entitled "An attempt to classify the Longicorn Coleoptera of America North of Mexico." Referred to the Committee on the former portions of the paper.

Dr. Leidy read a paper from Mr. Charles Girard, intended for publication in the Proceedings, entitled "Notice of twelve new genera of exotic Planariæ, by Charles Girard," which was referred to Mr. Lea, Dr. Ruschenberger, and Dr. Leconte.

Mr. Cassin read a paper, intended for publication in the Proceedings, entitled "Description of Birds of the genera Laniarius, Dicrurus, Graucalus, Pipra, and Picus, specimens of which are in the Academy of Natural Sciences of Philadelphia." Referred to a Committee consisting of Dr. Fisher, Dr. Wilson, and Dr. Watson.

Dr. Leidy exhibited several fossils, from the Green Sand of New Jersey, which he characterized as follows :—

CHELONIA GRANDÆVA, *Leidy*.

Proposed upon three vertebral plates from the Green Sand of New Jersey, presented to the Academy by Mr. Wetherill.

One of these has its anterior extremity broken off, but the length of the fragment is greater than the breadth ; its form has been quadrilateral, and it was probably the first vertebral plate. Length 2 in. 8 lines ; breadth 23 lines.

A second plate is broad hexahedral, the two lateral sides equal and shorter than the anterior, which is concave, and the posterior which has the stump of a pointed process.

Length 26 lines ; breadth 32 lines ; thickness 5½ lines.

The third plate is hexahedral, sinuated in front, with a pointed process behind.

Length with process 28 lines ; breadth 28 lines.

TRIONYX PRISCUS, *Leidy*.

Indicated by a fragment of the proximal extremity of a costal plate, from the Green Sand of New Jersey.

Thickness of plate 3½ lines, with the rib proper five lines.

The attention of the members was also directed to a fossil cranium from the Eocene of Nebraska, from the collection of Dr. D. D. Owen, which was characterized as follows :—

MACHAIRODUS PRIMÆVUS, *Leidy and Owen*.

Established upon a mutilated cranium, one-fourth less in size than the panther, Felis concolor.

The greater portion of the canines is broken away, but sufficient remains of that of the right side to indicate that it was long, compressed in form, and denticulate upon its concave edge.

Upon the right side the second and third superior molars, and the first and second inferior are exposed to view, the others, excepting the first superior, which has been shed, are enveloped in the matrix in which the fossil was imbedded. Upon the left side the three inferior molars are preserved nearly entire.

The alveoli for the superior incisors remain and are very large, and leave no interval between them and the canine.

The interval between the latter and the second molar is unusually large, being 7 lines.

The chin is broken away but ten lines anterior to the first molar, the anterior broken margin of the jaw at its upper part is only one line thick, and presents no disposition to expand for the reception of the inferior canines. The coronoid process is very short, being only nine lines. The face above the infra-orbitar canals is very broad, and its anterior aspect with the forehead form a very abrupt angle with the parietal crest, or the forehead is very high above the post orbitar processes.

Measurements.

Length from occipital condyles to incisive alveoli of upper jaw,	6½ inches.
Breadth of face above infra-orbiter foramina, ...	11 lines.
Breadth of canine at base of crown, ...	7 "
Thickness " " "	4 "

Dr. L. also made the cranium of a Musk-rat, obtained from a marl pit in New Jersey, presented this evening by Dr. Burtt, the subject of the following remarks. He observed, the specimen served as a hint to be cautious how we refer remains of animals of a recent character to older formations. There are preserved in the cabinet of the Academy fragments of a lower jaw, tibia, and antler of a deer, and the cranium of a beaver, which were also found in digging marl in New Jersey. All the specimens have the color of true marl fossils, but it is evident from the character of the animals to which the remains belong, that they are only accidental inhabitants of the Green Sand. They may have fallen into a narrow fissure of a marl bed which was afterwards closed up, or they may have sunken in marl mud on the banks of a stream, whose bed afterwards may have been filled up by drift material, and thus the mode of access to the marl be obliterated. In the cabinet is a specimen of the distal extremity of an os femoris of a Snipe, found in the New Jersey marl, and described by Dr. Harlan* as a true fossil of the latter, but this is also a fragment of a recent animal belonging to the same category as the bones above mentioned. It is doubtful whether birds appeared very anterior to the Eocene period; the ornithicnites of the new Red Sandstone may yet prove to be of reptilian origin.

Dr. Fisher remarked, in relation to the fruit of the Palm, presented this evening, that it was probably the fruit of the Corozo, mentioned by Humboldt in his "Aspects of Nature," as being the smallest of the Cocoa Palms.

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* Med. and Phys. Researches, p. 280.

Mr. Lea exhibited a specimen of Zircon imbedded in blue Quartz, from the vicinity of the Yellow Springs, Chester county, Pennsylvania.

Mr. Vaux requested the attention of the members to the beautiful suit of specimens of Minerals from Nova Scotia, presented this evening by Isaac Chipman, Esq., many of which were not in the collection of the Society.

December 23d.

Vice-President Bridges in the Chair.

Dr. Leidy read a paper, intended for publication in the Proceedings, entitled "Contributions to Helminthology." Referred to Drs. Hallowell, Wilson, and Zantzinger.

Dr. Le Conte read a paper, intended for publication in the Proceedings, entitled "Synopsis of the Lampyrides of temperate North America." Referred to Dr. Leidy, Dr. McEuen, and Mr. Lea.

Dr. Leidy made some remarks upon the two species of Rhinoceros from Nebraska, which he had named R. Nebrascensis and R. occidentalis, and said he had satisfied himself they both belonged to the sub-genus Acerotherium, *Kaup.*, a good character of distinction of which, in the teeth, is the presence of a well developed basal ridge.

Mr. Lea exhibited a complete suite of specimens of Unio multiplicatus, from the Western Rivers of the United States, and made some extended remarks on the Family Naidæ.

December 30th.

Vice-President Wetherill in the Chair.

The Committee to which was referred the following paper by Dr. Le Conte, reported in favor of publication in the Proceedings.

Synopsis of the Lampyrides of Temperate North America.

By John L. Le Conte, M. D.

LAMPYRIDES.

Mandibulæ integræ: labrum obtectum: abdomen 6-vel 7-articulatum articulis omnibus liberis: tarsi 5-articulati articulo quarto calceato, plus minusve bilobato; femora ad trochanteris basin et latus inserta.

Div. 1^{ma}. *Photophori.*

Abdomen sæpissime 7-articulatum,* articulis ultimis sæpius phosphoreis; antennæ approximatæ; tarsi articulo 4^{to} subtus calceato.

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* Colophotia has only six segments in the abdomen.

α Caput exsertum; thorax antice truncatus.

PHENGODES Hoffg.

Antennæ 11-articulatæ, longe biramosæ, articulis 2 et 3 minutis; abdomen segmentulo anali aucto (an nota sexualis?), tarsi articulo 4^{to} simplici.

1. P. plumosa Hoffmansegg. Illig. Mag. 6, 341. Laporte, Ann. Ent. Soc. Fr. 2, 128. *Lampyris plumosa* Oliv. 28, tab. 3, 27; Fabr. Syst. El. 2, 105. *Phengodes testaceus* Leach, Zool. Journal, 1, 45.

Middle, Southern and Western States; very rare. Say observes (Bost. Journ. 1, 157) that it is abundant for a short period in the autumn, flying into rooms at night. The coolness with which Mr. Leach places Olivier's name as a synonym to that suggested by him is remarkable, and might be well worthy of a harsher comment.

β Caput thorace obtectum; antennæ articulo 3^{io} sequentibus æquali.

POLYCLASIS Newman.

Antennæ 11-articulatæ, breviter bipectinatæ; palpi maxillares articulo ultimo securiformi; tarsi articulo 4^{to} vix lobato, ungues integri.

1. P. bifaria. *Lampyris bifaria* Say. Bost. Journ. 1, 157. *Pollaclasis ovata* Newman. Ent. Mag. 5, 382.

Southern States, Haldeman; very rare. I have corrected Newman's vicious spelling of the generic name. This species must give but little light, only the last joint of the abdomen is pale colored in my specimen.

LUCERNUTA Lap.

Lychnuris †Dej.

Antennæ 11-articulatæ, dilatatæ, compressæ; palpi maxillares articulo ultimo magno securiformi; tarsi articulo 4^{to} longe lobato, ungues simplices; abdomen apice phosphoreum, articulo ultimo superiore apice emarginato.

The males are distinguished by the longer and broader antennæ, and the larger size of the last superior abdominal segment, which extends beyond the inferior one in every direction; they have also a small additional anal segment beneath.

1. L. atra. *Lampyris atra* Fabr. Ent. Syst. 2, 101; Oliv. 28, tab. 3, 28; *Lampyris laticornis* Fabr. Syst. El. 2, 100; *Photinus* (*Lucernuta*) *laticornis* Laporte. An. Ent. Fr. 2, 144. *Lych. morio* Mels. Pr. Ac. Nat. Sc. 2, 303.

Abundant everywhere. I have restored Fabricius' older name, as I see no reason mentioned for changing it; I have a variety from Georgia with the whole of the posterior part of the thorax blackish.

2. L. tarda, atra, nigro-pubescens thorace apice subangulato, scabro lateribus subito late reflexis, fusco-testaceis, basi late emarginato, disco late canaliculato, ante basin utrinque transversim elevato, elytris confertim minus subtiliter granulatis. Long. ·33.

Ohio, Dr. Kirtland. Very similar to the preceding; the sides of the thorax are more suddenly reflexed, and the disc is channeled; the basal elevation on each side is broader and less sudden, rather a line than a tubercle, and the elevated lines of the elytra are scarcely visible.

3. L. punctata, atra, griseo-pubescens, thorace apice vix angulato, marginibus subreflexis pallidis, punctatis, disco versus basin late foveato, cum margine basali vix emarginata nigro, utrinque ante basin macula rosea ornato, elytris grossius granulato-punctatis. Long. ·25.

Georgia, in Habersham county. The antennæ are as broad as in L. atra, and in the same manner are shorter in the female than in the male. The basal angles of the thorax are almost always dark colored; the discoidal spot is sometimes almost disconnected with the base.

ELLYCHNIA Dej.

Antennæ compressæ, 11-articulatæ, palpi maxillares articulo ultimo triangulari, apice acuto; tarsi articulo 4to longe lobato, ungues simplices; abdomen articulis nullis phosphoreis, ultimo superiore apice truncato, non emarginato.

The first division of this genus approaches very closely in form to the last, and is distinguished only by the form of the last superior abdominal segment, and the absence of any light giving spot. The males are distinguished by the additional anal segment, which, with the preceding, is protected by the large superior segment.

* Corpus elongatum.

1. E. nigricans, fusco-nigra, thorace apice rotundato basi truncato, lateribus subito reflexis, apiceque punctatis, macula utrinque rosea ornato, disco ante basin angulatim impresso, elytris confertissime subtiliter granulatis. Long. ·2—·25.

Lampyris nigricans, Say. J. Ac. Nat. Sc. 3, 179.

? *Lampyris obscura* Fabr. Syst. El. 2, 100.

Abundant everywhere; the thoracic spot is sometimes obsolete. The granulation of the elytra is much finer than in the next species. The margin of the thorax is commonly fuscous but is sometimes pale.

2. E. decipiens, fusco-nigra, thorace apice rotundato, basi truncato, lateribus subsubito reflexis, roseo-testaceis, cum apice scabris, disco obsolete carinato, ante basin transversim impresso, elytris confertim minus subtiliter granulatis. Long. ·25.

Lampyris decipiens Harris. Trans. Hartford Nat. Hist. Soc. 74.

Northern and Southern States; the elytra have two slightly elevated lines. I have one specimen from Georgia in which there is a wide impression at the middle of the thorax and the carina is wanting, it may possibly be a distinct species, but in such an obscure family I am unwilling to separate it on a single specimen.

3. E. minuta, linearis, fusco-nigra, thorace apice rotundato, basi subemarginato, lateribus vix reflexis, roseo-testaceis, cum apice punctatis, disco subtiliter canaliculato, elytris minus subtiliter granulatis Long. ·17.

Georgia; rare. This small species is readily distinguished by its narrower form; the disc of the thorax is much more even, than in the preceding species.

** Corpus ellipticum.

4. E. corrusca. *Lampyris corrusca* Linn. Syst. Nat.; Oliv. 28, tab. 2, 14; Fabr. Syst. El. 2, 100. *Pyratomena fenestralis* Mels. Pr. Ac. Nat. Sc. 2, 304. Middle and Southern States

5. E. autumnalis Mels. Pr. Acad. Nat. Sc. 2, 303. Middle States.

6. E. lacustris, elongato-elliptica, fusco-nigra, thorace semicirculari, disco convexo, lateribus parce punctatis, depressis, linea utrinque arcuata pallida ornatis, elytris confertissime subtiliter granulatis linea elevata subobliqua notatis. Long. ·3.

Lake Superior; narrower than E. autumnalis, and with the sides of the thorax less punctured. It is much smaller and a little narrower than E. corrusca, and the pale arched spot of the thorax is much narrower.

PHOTINUS Lap. emend.

Antennæ compressæ, tenues, 11-articulatæ; palpi maxillares articulo ultimo triangulari, tarsi articulo 4to longe lobato, ungues simplices, abdomen articulis tribus phosphoreis, ultimo superiore apice truncato, inferiore emarginato segmentulo anali aucto.

The anal segment here exists in both sexes, but from the drying of the abdomen the 7th segment is sometimes retracted. The males have the superior terminal segment extending beyond the inferior segment, as in the other genera.

1. P. pyralis, piceo-vel nigro-fusca, thorace semicirculari, basi truncato, utrinque roseo-maculato, macula centrali nigra ornato, canaliculato, marginibus late punctatis, lateribus subito reflexis, elytris confertissime granulatis, margine, sutura scutelloque pallidis coxis femoribusque flavis. Long. ·38—·60.

Lap. An. Ent. Pr. 2, 141.

Lampyris pyralis Lin. Syst. Nat: De Geer 4, 52: tab. 17, 7; Fabr. Syst. Ent. 2, 99; Syst. El. 2, 101. Oliv. 28, 2, 11.

Lampyris centrata Say. J. Ac. Nat. Sc. 5, 162. *Lamp. rosata* Germ. Ins. Nov. 62.

Rare in the Middle States, but very common in the Southern States; the thoracic spot is sometimes very small; the female only differs from the male by the abdomen.

2. P. ardens, fusca vel picea thorace semicirculari, basi truncato, angulis posticis acutis, sub-productis, margine laterali apicalique pallidis, punctatis, lateribus subito reflexis, disco subtiliter canaliculato, ante basin late impresso, elytris minus subtiliter granulatis, margine, suturaque pallidis. Long. ·3—·45.

Lake Superior; the feet are pale fuscous, with the base of the femora yellow; the thorax is sometimes carinated at base; such a variety is the Pygolampis tædifer of my Catalogue in Agassiz' Lake Superior.

3. P. casta, pallida, thorace semicirculari basi truncato, angulis posticis non productis, lateribus minus subito reflexis, cum apice late punctatis, disco lævi, roseo, ante basin vix foveato, elytris subtiliter granulatis; antennis capite postpectoreque fuscis. Long. ·3.

Habersham Co., Georgia, May. A very pretty little species; the female is similar to the male.

4. P. scintillans, fusca, thorace pallido semicirculari, basi truncato, angulis posticis non productis, lateribus subsubito reflexis cum apice punctatis, disco obsolete biimpresso, roseo, medio infuscato, elytris subtilissime granulatis, margine, sutura, scutelloque pallidis, pedibus testaceis. Long. ·32.

Lampyris scintillans Say. J. Ac. Nat. Sc. 5, 163.

Middle States. This species is only distinguished from the next by the elytra being more finely and almost indistinctly granulate; the female has short elytra, and the antennæ but little longer than the thorax.

5. P. marginella, fusca, thorace pallido, semicirculari, basi truncato, angulis posticis non productis, marginibus subito reflexis, apiceque late punctatis, disco vix canaliculato, roseo, macula centrali fusca, elytris subtiliter granulatis, margine sutura scutelloque pallidis, pedibus testaceis. Long. ·32.

This is the common northern species, and is also found in Missouri. The female only differs from the male by the last abdominal segment. Were it not for the difference in sexual characters, I should not have separated this from the last species, from which it can hardly be distinguished; the fuscous spot of the thorax is sometimes wanting.

6. P. punctulata, fusco-picea, thorace pallido, semicirculari, basi truncato, angulis posticis non productis, marginibus minus subito reflexis apiceque punctatis, disco roseo, canaliculato, subtiliter punctato, macula centrali apiceque infuscatis, elytris confertim granulatis, margine sutura, scutelloque pallidis, femoribus coxisque testaceis. Long. ·37.

Missouri Territory; the female has short elytra; the antennæ are nearly as long as in the male.

7. P. consanguinea, fusco-picea, thorace semicirculari, pallido, basi late emarginato, angulis posticis productis, disco roseo, medio nigro-vittato, vix canaliculato, marginibus subito reflexis, apiceque punctatis, elytris confertim granulatis, margine suturaque pallidis, femoribus testaceis. Long. ·32—·42.

Southern States, abundant; the female is similar to the male, but has only the antepenultimate segment of the abdomen luminous.

8. P. obscurella, fusco-picea, thorace semicirculari, basi late emarginato, angulis posticis vix productis lateribus testaceis subito reflexis, apiceque punctatis, disco vix impresso, toto fusco, elytris confertim granulatis, margine suturaque anguste pallidis. Long. ·43.

One specimen; Missouri Territory. Very much resembles P. ardens, but differs essentially in having the base of the thorax emarginate.

9. P. lineella, linearis, fusco-picea, thorace pallido semiovali, basi truncato, angulis posticis subproductis, marginibus subito reflexis, apiceque anguste punctatis, disco vix impresso roseo, medio nigro-vittato, elytris confertim granulatis, margine suturaque anguste pallidis. Long. ·27.

Georgia, rare; this species is much narrower than any of the preceding, and the sides of the thorax are subparallel towards the base. Female unknown.

10. P. vittigera, fusco-picea, thorace breviore, semicirculari pallido, basi subemarginato, angulis posticis leviter productis marginibus late minus subito reflexis, apiceque punctatis, disco roseo, subcanaliculato, vitta lata nigra ornato, elytris subtiliter granulatis, margine suturaque pallidis. Long. ·48.

Georgia, rare. Resembles P. consanguinea, but the thorax is shorter and the elytra less distinctly granulated.

PYRACTOMENA †Dej.

Antennæ 11-articulatæ, tenues, subcompressæ, articulo ultimo versus apicem sinuato; palpi maxillares articulo ultimo triangulari apice acuto, tarsi articulo 4to longe lobato, ungues simplices; abdomen articulis tribus subtus phosphoreis, ultimo superiore apice emarginato.

The males are distinguished by the last superior abdominal segment being produced beyond the inferior segment, as in the other genera; the anal segment is visible only in the male, and is emarginate.

* Elytra late marginata.

1. P. flavocincta, fusco-picea thorace pallido antice subangulato, basi late emarginato, angulis posticis extrorsum productis, lateribus subito late reflexis, margine fusco, disco subcarinato, medio late infuscato, elytris alutaceis, costulatis, margine late depresso, suturaque angusta pallidis. Long. ·45.

Georgia. The angles of the thorax being produced obliquely outwards, distinguish this species from the next.

2. P. angulata. *Lampyris angulata* Say. J. Ac. Nat. Sc. 5, 162; *Lampyris lucifera* Mels. Pr. Ac. Nat. Sc. 2, 304. Middle and Western States.

** Elytra minus late marginata.

3. P. angustata, fusco-picea, thorace apice angulato, pallido, basi vix emarginato, angulis posticis non productis, lateribus late subito reflexis, disco subtiliter carinato, utrinque roseo, medio longitudinaliter infuscato, elytris subtiliter granulatis, costulatis, margine angusto reflexo, suturaque tenui pallidis. Long. ·42—·55.

Southern States. The thorax is usually longer than wide; in one specimen (probably distorted) the reverse is the case.

4. P. linearis, elongata, fusca, thorace pallido apice vix angulato, basi truncato, angulis posticis vix productis, lateribus subito reflexis leviter infuscatis, disco carinato pone apicem late infuscato, elytris distinctius granulatis, costulatis, margine angusto pallidiore. Long. ·37.

Georgia; two specimens.

5. P. borealis, fusca, thorace pallido, apice angulato, basi late emarginato, angulis posticis leviter productis, lateribus late reflexis, infuscatis, disco subcarinato, utrinque roseo, medio longitudinaliter infuscato, elytris

alutaceis, costulatis, anguste marginatis, margine suturaque tenuissime pallidis. Long. ·4—·58.

Lampyris borealis Randall. Bost. Journ. Nat. Hist. 2, 16.

Lake Superior, Cleveland and Maine. The female is luminous only at the sides of the segments. The margin of the elytra of the male is much narrower, and the sides are less suddenly deflexed; the male is P. falsa of my catalogue in Agassiz' Lake Superior.

Phausis.

Antennæ 12-articulatæ breves, serratæ, compressæ; articulis 1 et 2 parvis, ultimo subulato minutissimo, vix conspicuo; palpi minuti; tarsi articulo 4^{to} brevi bilobato, unguiculari longo, ungues simplices; abdomen articulis tribus phosphoreis, segmento ultimo superiore emarginato.

1. P. reticulata. *Lampyris reticulata* Say. J. Ac. Nat. Sc. 5, 163. *L. brevicornis* ⸸Dej. Cat. Georgia, rare.

Photuris ⸸Dej.

Antennæ 11-articulatæ, tenues, elongatæ, articulis 2 et 3 brevioribus; palpi maxillares articulo ultimo triangulari acuto, labiales articulo ultimo transverso lunato: tarsi articulo 4^{to} longe lobato, ungues externi fissi, interni simplices; abdomen articulis 3 ultimis phosphoreis, segmento superiore ultimo apice rotundatis.

This very distinct genus forms the 3d division of Laporte's genus Photinus, (An. Ent. Fr. 2, 144,) and to it he has given the uncouth name of *Teléphoroides*; fortunately his Gallic patriotism has led him to print this as a French word, so that we are enabled to replace it by the hitherto unpublished name of Dejean. While on this subject I may add, that Laporte in this, as in almost every other instance, has completely overlooked the real distinguishing characters of the genus.

1. P. pensylvanica. *Lampyris pensylvanica* De Geer 4, 53, tab. 17, 8, Oliv. 25, 1, 8. Enc. Meth. 7, 455; *Lamp. versicolor* Fabr. Syst. El. 2, 105; *Photinus pensylvanicus* Laporte. An. Ent. Soc. Fr. 2, 144.

Abundant in every part of the United States; usually the elytra are marked with a discoidal pale vitta extending beyond the middle. In Southern specimens this vitta is occasionally wanting; these are *Photuris lineaticollis* of Dejean's Catalogue.

2. P. frontalis, picea, fronte valde concava, thorace pallido sat dense punctato marginibus late reflexis, vitta media fusca apicem non attingente notato, elytris confertim minus subtiliter punctatis, margine, sutura scutelloque pallidis, femoribus basi pallidis Long. ·4.

One specimen; Georgia. The punctuation is coarser and less dense than in P. pensylvanica.

3. P. divisa, picea, fronte leviter concava, thorace pallido, sat dense punctato, marginibus late subito reflexis, disco utrinque macula magna fusca

notata, elytris confertim punctatis, margine sutura, scutelloque pallidis, femoribus testaceis. Long. ·42.

Missouri Territory. The third joint of the antennæ is longer than the 2d.

4. P. **congener**, picea, capite testaceo, valde concavo, thorace pallido, confertissime punctato, marginibus late subito reflexis, disco rufo utrinque infuscato, elytris confertissime punctatis, margine sutura, scutelloque pallidis, femoribus pallidis, apice fuscis. Long. ·43.

One specimen; Georgia; antennæ with the third joint a little longer than the second.

Div. 2^{nda} *Telephori.*

Abdomen sæpius 6-articulatum,* segmentis nullis phosphoreis; antennæ distantes; tarsi articulo 4^{to} usque ad basin fisso.

* Antennæ articulo 2^{ndo} minuto.

CHAULIOGNATHUS Htz.

Palpi articulo ultimo paulo dilatato; antennæ articulo 2^{ndo} minuto, 3^{tio} sequentibus breviore; thorax margine integro; ungues simplices.

For the curious structure of the maxilla of this genus see Hentz in Trans. Amer. Phil. Soc. 3, 460.

1. C. **pensylvanicus**. *Telephorus pensylvanicus* De Geer. 4, tab. 17, 15; *Cantharis americana* Forster. Cent. Ins. 50; *Canth. bimaculata* Fabr. Ent. Syst. 1, 216; Syst. El. 1, 298; *Tel. bimaculatus* Ol. 26, 2, 11; *Chauliognathus bimaculatus* Hentz. Trans. Am. Phil. Soc. 3, 461. Abundant everywhere.

2. C. **Hentzii**, luteus, thorace quadrato, subtransverso, lateribus anguste marginatis, medio nigro-vittato, subcanaliculato, elytris macula utrinque postica, sæpe ad basin extensa scutelloque nigris, subtus piceus, femorum posticorum basi abdomineque testaceis. Long. ·4.

Very similar to the preceding, but the thorax is not margined in front, and the black spot extends to the apex, the head and antennæ are black. Northern and Southern States; rare.

3. C. **marginatus** Hentz. l. l. 3, 460; *Cantharis marginata* Fabr. Ent. Syst. 1, 216; Syst. El. 1, 298.

Abundant, especially in the Southern States; a variety in which the black occupies the whole of the elytra, leaving only a narrow marginal and sutural line yellow, is the *Callianthia philadelphica* Dej. Cat.

POLEMIUS.

Palpi articulo ultimo triangulari; antennæ compressæ, serratæ, articulo 2^{do} minuto, 3^{tio} sequentibus non minore: thorax margine laterali ad medium interrupto: ungues simplices, externo postico ad basin dilatato.

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* When it has seven articulations, the last is small and presents the appearance of an anal joint.

1. P. laticornis. *Cantharis laticornis* Say. J. Ac. Nat. Sc. 5, 168; *Telephorus dubius* Mels. Pr. Ac. Nat. Sc. 2, 304. Middle States; rare.

2. P. limbatus, ater thorace subtransverso, rufo antice infuscato, lateribus marginatis, rectis pallidis. medio minute incisis, angulis posticis acutis, elytris subtilius scabris, margine suturaque pallidis, abdominis segmentis pallido marginatis, mandibulis tibiisque anticis testaceis. Long. ·22.

New Jersey; Mr. Guex. The antennæ are less strongly serrate than in the preceding.

3. P. incisus, ater, thorace quadrato, antrorsum vix angustato, lateribus anguste marginatis testaceis, ad medium acute incisis, disco nigro valde triimpresso, elytris scabris. Long. ·25.

Georgia; rare. Easily distinguished by its less transverse thorax, concave in the middle, less narrowed, but more rounded at the apex, and more suddenly incised at the middle of the lateral margin, which is much narrower.

SILIS Charpentier, Hor. Ent.*

Palpi articulo ultimo vix dilatato; antennæ articulo 2ndo minuto, 3io sequentibus æquali; thorax margine ad angulum posticum profunde inciso, appendice clavato inferne munito; ungues ad basin vix dentatis.

a. Antennæ valde serratæ.

1. S. bidentata. *Cantharis? bidentata* Say. J. Ac. Nat. Sc. 5, 169; *Silis lepida* Dej. Cat.

Middle and Southern States. Say's description gives the second joint of the antennæ as being half the length of the third; it is in reality much smaller.

b. Antennæ tenues, elongatæ, vix serratæ.

2. S. longicornis Lec. Agassiz Lake Superior, 230. Sault Ste. Marie.

3. S. difficilis Lec. l. c. 230.

Sta. Fe and Lake Superior; the teeth at the posterior angle of the thorax are much more prolonged than in the last mentioned species.

4. S. pallens, piceus, thorace elytrisque flavo-pallidis, illo transverso, marginato, medio fovea lata nigra minus profunde impresso, ad angulos posticos subito inciso, dente anteriore obtuso, posteriore acuto tenui, elytris subtiliter scabris, sutura, margine scutelloque nigris. Long. ·2. One specimen, San Francisco.

**Antennæ articulo 2ndo majusculo.

TELEPHORUS Geoff.

Cantharis Fabr.

Palpi articulo ultimo dilatato, securiformi; antennæ articulo 2ndo tertio sesqui breviore caput pone oculos vix angustatum; thorax margine integerrimo.

This genus varies very much in the form of the claws of the tarsi, which are sometimes entire, sometimes toothed at the base, and sometimes bifid; the two latter forms run into each other, to such an extent, that this character cannot be made use of in dividing the genus. Those, however, which have only the exterior ungues of the two posterior pairs toothed may form a separate section.

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*I give the citation to Charpentier, as his description (1825) appears to be the earliest. Megerle instituted the genus in 1821 in Dejean's Catalogue, which cannot of course be quoted as authority.

a. Ungues posteriores externi dente basali armati.

1. T. rotundicollis. *Cantharis rotundicollis* Say. J. Ac. Nat. Sc. 5, 165. Rare throughout the Atlantic slope of the United States.

2. T. Curtisii Kirby. F. Bor. Am. 4, 246. Lake Superior.

3. T. tibialis, rufo testaceus, cinereo-pubescens, thorace transverso marginato, subcanaliculato versus basin subangustato, elytris fuscis, subtilissime scabris, tibiis tarsisque obscuris, antennis fuscis basi rufis. Long. ·75.

California, San Diego. This fine species differs from the preceding by its broader thorax; the head is immaculate; the abdomen is a little darker than the pectus.

4. T. consors, rufo-testaceus, cinereo-pubescens, thorace longiusculo, marginato, subcanaliculato, versus basin subangustato, elytris fuscis subtilissime scabris, tibiis tarsisque obscuris, antennis fuscis basi rufis. Long. ·57.

California, San Diego; only differs from the last by its long thorax; the margin in front is broad, and the apex rounded.

5. T. lautus, niger, cinereo-pubescens, ore pedibus thoraceque læte flavis, hoc quadrato, antrorsum subangustato, undique anguste marginato, elytris scabris, substriatis. Long. ·3.

San Francisco, California; one specimen.

6. T. grandicollis, niger, cinereo-pubescens, ore, thoraceque læte rufis, hoc elytris non angustiore transverso, canaliculato, marginato, lateribus valde rotundatis, elytris subtiliter scabris, abdomine obscure testaceo. Long. ·28.

San Francisco; one specimen.

7. T. fidelis, niger, subtiliter pubescens, mandibulis, thoraceque rufo-flavis, hoc transverso, marginato, vix canaliculato, lateribus paulo rotundatis, ad apicem nigro, elytris scabriusculis, abdomine flavo. Long. ·23.

Santa Fe; Fendler. This species differs from all the preceding species in having the internal claw of the posterior tarsi somewhat dilated at base; it is similar in form to the next species, but the second joint of the antennæ is proportionally much shorter.

8. T. collaris, niger, tenuiter pubescens, ore thoraceque flavis, hoc transverso, minus late marginato lateribus subrotundatis, elytris scabris, antennarum basi testaceo. Long. ·25.

Missouri Territory and Illinois; the basal joints of the antennæ are sometimes very dark; the abdomen is entirely black.

9. T. bilineatus Lec. Agassiz Lake Superior, 229. *Cantharis bilineatus* Say. J. Ac. Nat. Sc. 3, 182.

Middle States and Lake Superior. The postpectus is usually fuscous, but a variety from the Southern States has that part as light colored as the abdomen.

10. T. divisus, niger, griseo-pubescens, ore thoraceque flavis, hoc quadrato, lateribus rectis angulis anticis rotundatis posticis rectis, margine anguste reflexo, disco subcanaliculato, maculis duabus magnis fere confluentibus notato, utrinque versus angulos anticos subexcavato, elytris substriatim scabris. Long. ·3.

California, San Francisco.

11. T. impressus, niger, thorace transverso, latius marginato, disco subcanaliculato ante basin late impresso, disco antice profunde transversim impresso, lateribus flavis, elytris valde punctato-scabris. Long. ·24.

New York; Mr. Guex. One specimen; resembles in appearance T. rectus, lineola and several others of the third division.

12. T. tuberculatus, niger, thorace transverso, valde marginato, subcanaliculato, lateribus flavo-rufis subrotundatis, antice transversim impressis, tuberculo parvo versus angulos anticos notatis, elytris valde punctato-scabris. Long. ·23.

Georgia; one specimen. Very similar to the last; the sides of the thorax are more rounded; the little tubercle is rather on the disc than the marginal part of the thorax.

b. Ungues omnes simplices.

13. T. brevicollis, niger, mandibulis, thoracisque lateribus flavis; thorace valde transverso, marginato, antice vix impresso, lateribus subrotundatis, elytris minus subtiliter punctato-scabris. Long. ·22.

One specimen; Georgia.

14. T. undulatus, niger, thorace roseo-pallido, valde transverso, late marginato, antice subangustato, lateribus repandis, canaliculato, medio nigro, elytris valde scabris, margine, sutura, humeris abdominisque margine testaceo. Long. ·3.

Georgia; M. Guex. The thorax is as wide as the elytra; the disc has a short transverse impression on each side of the middle. This may possibly be Cantharis invalida Say. Bost. Journ. Nat. Hist. 1, 159, but the form of the thorax is not mentioned, and Say's insect appears to have been much smaller.

c. Ungues omnes dentati, sæpius fere fissi.—*Rhagonycha* Esch.

15. T. dentiger, niger, mandibulis thoraceque testaceis, hoc transverso late marginato, punctato, canaliculato, lateribus rotundatis, disco utrinque pone medium late infuscato, elytris scabris, epipleuris abdominisque margine testaceis. Long. ·35.

One specimen; Maryland. Same size and form as the following, but at once distinguished by its punctured thorax and the shortness of the ungual tooth.

16. T. carolinus. *Cantharis carolina* Fabr. Syst. El. 1, 296. Middle and Southern States.

17. T. curtus. *Podabrus curtus* Lec. Agassiz Lake Superior, 229. *? Cantharis percomis* Say. Bost. Journ. Nat. Hist. 1, 159.

18. T. cinctellus, subtus testaceus, capite postice nigro, thorace flavo, transverso, anguste marginato, lateribus rectis, elytris confertim scabro-punctatis piceis, sutura margine scutelloque pallidis, antennis obscuris basi pedibusque flavis. Long. ·2.

Georgia and Missouri Territory. This and all the following species have the tooth of the claw almost equal to the claw itself.

19. T. dichrous, niger, fronte thoraceque flavis hoc latitudine vix breviore, lateribus vix rotundatis, margine reflexo ad medium angustiore, disco ad latera antice paulo excavato, versus basin in medio paulo deplanato, elytris scabro punctatis, pedibus antennarumque basi rufis. Long. ·2. Missouri Territory.

20. T. flavipes, niger, fronte thoraceque flavis, hoc quadrato, lateribus rectis margine reflexo ad medium angustissimo, disco nigro-vittato, postice obsolete canaliculato ad latera antice vix excavato, elytris subtilius scabro punctatis, antennarum basi pedibusque rufis. Long. ·22.

Missouri Territory. The thorax exactly resembles that of T. lineola, but the color of the mouth and feet at once distinguishes this species; the elytra are less coarsely scabrous than in T. lineola.

21. T. lineola. *Cantharis lineola* Fabr. Syst. El. 1, 301; *Cantharis parallela* Say. J. Ac. Nat. Sc. 5, 169. Common in the Northern and Southern States.

22. T. rectus Mels. Pr. Ac. Nat. Sc. 2, 306.

Middle and Southern States. Varies, with the suture and tibiæ at base testaceous; also with the femora fuscous, tibiæ and tarsi pale. I suspect that Cantharis rufipes Say. J. Ac. Nat. Sc. 3, 182, is this variety, but his description is excessively bad.

23. T. Sayi, niger, thorace subtransverso, antrorsum subangustato, angulis omnibus rotundatis, lateribus tenuiter marginatis, disco æqualiter convexo, nigro-vittato, elytris scabro-punctatis. Long. ·27.

One specimen, New York. Differs from T. lineola by the much narrower reflexed thoracic margin, which is almost obsolete at the middle. The next species has a thorax not at all transverse, the black part is much broader, the reflexed margin less narrow, and the disc is laterally excavated before the middle.

24. T. angulatus. *Cantharis angulatus* (?) Say. J. Ac. Nat. Sc. 3, 180. Pennsylvania, Bristol.

25. T. cruralis, niger, ore thoraceque flavis, thorace transverso antrorsum subangustato, angulis omnibus subrotundatis, lateribus rectis tenuiter marginatis, disco æqualiter convexo, nigro-lineato, elytris subtilius scabris, testaceo-marginatis pedibus flavis tibiis tarsisque fuscis. Long. ·26.

One specimen, Georgia. Very much resembles in form and size T. lineola, &c., but very distinct; the lateral margin of the thorax becomes more indistinct towards the anterior angle.

26. T. marginellus, niger ore thoracisque margine flavis, thorace subtransverso, antrorsum subangustato, angulis omnibus subrotundatis, lateribus leviter rotundatis marginatis, disco æqualiter convexo nigricante, elytris scabris, sutura margineque tenuiter pallidis, antennarum basi genubusque testaceis. Long. ·23.

Georgia, one specimen. The margin of the thorax is more distinct and equally reflexed anteriorly; most nearly resembles T. rectus (Mels.,) but the sides of the thorax are not straight, the sides of the disc are not excavated anteriorly, and the margin is wider.

27. T. excavatus, niger, thorace flavo quadrato, antrorsum angustato, lateribus rectis tenuiter valde marginatis, angulis vix rotundatis, disco late canaliculato, nigro-vittato, antice versus latera valde excavato, ad apicem subtilissime punctulato, elytris valde scabris, pedibus fuscis, tibiis tarsis mandibulisque pallidis. Long. ·26.

A very common species, which nearly resembles T. rectus, but the thorax is more distinctly margined, the disc much more excavated, and the black part is much narrower. The elytra are sometimes black, sometimes margined with testaceous. This, too, may be Canth. rufipes Say.

28. T. imbecillis, piceus, ore thoraceque flavis, hoc vix transverso, antrorsum subangustato, angulis posticis non rotundatis, margine anguste reflexo,

disco nigro lineato, utrinque antice late excavato, elytris scabris, sutura margineque testaceis, pedibus pallidis, genubus infuscatis. Long. ·26.

A common species, which resembles very much T. rectus, but the elytra are more scabrous.

29. T. scitulus Lec. Agass. Lake Sup. 229. *Canth. scitula* Say. J. Ac. Nat. Sc. 5, 168; *T. nigriceps* Lec. l. c. 230.

Middle and Northern States. My Teleph. nigriceps is only a distorted specimen of this species, which is much paler than usual.

30. T. longulus, pallidus thorace latitudine longiore, tenuiter marginato, angulis posticis non rotundatis, disco late canaliculato, antice ad latera excavato, elytris substriatim scabris, antennis fuscis, basi pallidis. Long. ·28.

One specimen, Niagara.

31. T. pusillus, niger, mandibulis pedibusque flavis, thorace vix transverso, marginato, lateribus rectis, flavis, disco subtiliter canaliculato, nigro, elytris scabris, epipleuris pallidis. Long. ·15.

One specimen, New York. The thoracic margin is not broader in front than behind. Resembles much T. rectus, but is much smaller; only the first joint of the antennæ is pale.

32. T. vilis, niger, thorace subtransverso, marginato, lateribus flavis, disco nigro, antice ad latera late excavato, postice ad angulos posticos rectos foveato, elytris valde scabro-punctatis. Long. ·15.

New York and Upper Mississippi. The margin of the thorax is broader towards the anterior angles.

33. T. fraxini. *Cantharis fraxini* Say. J. Ac. Nat. Sc. 3, 181: *Telephorus nigrita* Lec. Agass. Lake Sup. 229: *Malthacus mandibularis* Kirby. F. Bor Am. 248. Abundant at Lake Superior and Mackinaw; found also in Pennsylvania: some of the specimens have the maxillary palpi much less dilated than is usual in this genus; they are probably females.

PODABRUS ‡Fischer.

Palpi articulo ultimo dilatato, securiformi, vel triangulari, antennæ articulo 2^{ndo} tertio vix breviore, caput pone oculos valde angustatum, thorax margine integerrimo ad apicem truncatus vel emarginatus.

I can find no description of this genus except in the synopsis at the end of Westwood's introduction to the modern Classification of Insects, p. 27. If this be the earliest publication of the characters of the genus, the name of Westwood must of course be substituted in the place of Fischer, who in his Ent. Russ. only mentions the genus by name, without giving any description. The species of the first division all have a deep transverse impression before the middle of the thorax. The second division is equivalent to Kirby's genus *Malthacus*.

a. Thorax latius marginato; ungues fere fissi: palpi art. ult. securiformi:

1. P. tricostatus. *Cantharis tricostata* Say. Bost. Journ. Nat. Hist. 1, 158: *Telephorus Bennetii* Kirby F. Bor. Am. 219. Vermont, Prof. Adams; Pennsylvania, Dr. Melsheimer.

2. P. basilaris. *Cantharis basilaris* Say. J. Ac. Nat. Sc. 3, 181. Middle States, rare.

3. P. flavicollis, niger, fascia frontali thoraceque flavo-pallidis, hoc transverso, subcanaliculato, parcius punctato, lateribus latius marginatis, subro-

tundatis, elytris confertissime scabro-punctatis, scutello, sutura, margine, coxis femorumque basi pallidis. Long. ·47.

Middle and Southern States; rare. The antennæ are black, with the under surface of the two basal joints pale: the head is very densely punctured.

4. P. discoideus, niger, thorace pallido transverso, late marginato, lateribus leviter rotundatis, minus parce punctato, subcanaliculato, medio nigro-maculato, elytris confertissime scabris sutura margineque tenuibus pallidis, antennarum basi femoribusque pallidis, his apice piceis. Long. ·47.

New York: one specimen, Mr. Guex. The head is thickly punctured: the spot on the thorax does not extend farther than the transverse impression towards the apex.

5. P. modestus Lec. Agass. Lake Sup. 228; *Cantharis modestus* Say, J. Ac. Nat. Sc. 3, 179. New York and Lake Superior; the fuscous spot of the thorax sometimes occupies nearly the whole surface; the feet and antennæ vary from rufous to dark fuscous.

6. P. diadema Dej. Cat. 118: Cantharis diadema Fabr. Syst. El. 1, 298. Lake Superior, Middle and Southern States. What I consider as this species is distinguished from all the preceding by the head being much less densely punctured, the thorax is subtransverse and smooth, and the elytra without pale margin; the feet are always black. Length ·46.

7. P. pruinosus, niger cinereo-pubescens, capite thoraceque rufis, illo dense punctato, hoc subtransverso, late marginato, lateribus leviter rotundatis, canaliculato, ante medium subtiliter punctato, elytris subtiliter rugose scabris, abdominis apice lateribus pedibusque rufis. Long. ·52.

Oregon; Mr. Wilcox. This species bears the same name in the Berlin Museum, to which it was also sent by Mr. Wilcox.

8. P. comes, niger cinereo-pubescens, capite thoraceque rufis, illo dense punctato, hoc subtransverso, late marginato, lateribus rotundatis, canaliculato, ante medium subtiliter punctato, elytris minus subtiliter rugose scabris, coxis vix testaceis. Long. ·4.

California, San Francisco. Very similar to the last, but in addition to the characters of the diagnosis, the sides of the thorax are more rounded, and the posterior angles are small and prominent.

9. P. tomentosus. *Cantharis tomentosa* Say, J. Ac. Nat. Sc. 5, 165; *Podabrus rufiolus* Mels. Pr. Ac. Nat. Sc. 2, 304. Pennsylvania, Dr. Melsheimer. My specimen has the abdomen rufous, with a small fuscous spot at base.

10. P. rugosulus Lec. Agass. Lake Superior, 229. Very common in every part of the United States, and is usually mistaken for P. diadema, with the description of which it does not at all agree. The thorax is narrowed in front, and the whole surface is strongly punctured.

11. P. frater, niger capite confertim punctato, mandibulis, fasciaque suboculari testaceis, thorace subtransverso, antrorsum vix angustato, lateribus late marginatis subrotundatis rufis, disco canaliculato, ante medium subtilius punctato, elytris valde rugose scabris. Long. ·4.

One specimen; Georgia. Larger than the last, which it very closely resembles; the thorax, however, is not narrowed in front, and the convex part of the disc is smooth; as in the preceding, the elytra are very rough, with two indistinct lines; the head is thickly punctured.

12. P. puncticollis, piceus capite parcius punctato, ore flavo, thorace flavo capite angustiore, latitudine non breviore, parce punctato antrorsum angustato, lateribus subrotundatis late marginatis, medio canaliculato, nigro-vittato, elytris dense rugosis, sutura, margine, abdominis marginibus pedibusque pallidis, femoribus sæpius apice nigris. Long. ·35.

A common Southern species; the black on the femora extends about one-third of the length; the variety without this femoral spot is rare.

13. P. brunnicollis. *Cantharis brunnicollis* Fabr. Syst. El. 1, 298. Georgia, rare. This species nearly resembles the last, but the thorax is longer, not at all rounded on the sides, which are parallel, and it has no dorsal dark spot. The legs are black; the femora rufous at base for two-thirds their length.

b. Thorax angustius marginato, ungues basi dentati; palpi art. ult. triangulari.

14. P. cavicollis, supra pallidus, capite dense punctato pone oculos nigro, thorace parce punctato, elongato, lateribus rectis, angustius marginatis, antice posticeque excavatis, disco longitudinaliter valde excavato, leviter infuscato, elytris minus subtiliter scabro-punctatis, subtus piceus, antennarum basi pedibusque pallidis. Long. ·25.

San Diego, California.

15. P. puncticollis. *Podabrus marginellus* Lec. Agassiz' Lake Superior, 229. *Malthacus puncticollis* Kirby, F. Bor. Am. 247. Eagle Harbor Lake Superior.

16. P. punctatus Lec. ibid. 229. With the preceding.

17. P. puberulus Lec. l. c. 229. Lake Superior.

20. P. lævicollis Lec. l. c. 227; *Malthacus lævicollis* Kirby. F. Bor. Am. 248. Lake Superior: the disc of the thorax is sometimes rufous, black only at the base and apex.

Malthinus Latr.

Antennæ tenues, articulo 2^{ndo} tertio vix breviore; palpi maxillares articulo 2^{ndo} elongato, ultimo ovali apice acuto; tarsi postici articulis gradatim brevioribus, 4^{to} omnium bilobato, unguiculari brevi, unguibus integris; caput pone oculos angustatum; elytra abdomine breviora.

a. Caput pone oculos valde angustatum, elytra seriatim punctata.

1. M. occipitalis, pallide flavus, capite pone oculos nigro, thorace non transverso, antrorsum angustato, lateribus rotundato, minus dense punctato, valde canaliculato medio fusco vittato, antice transversim impressis, elytris sat dense seriatim punctatis, testaceis, apice anguste flavis. Long. ·1.

S. Carolina, Dr. Zimmerman.

2. M. difficilis, pallide flavus, capite pone oculos vix infuscato, thorace subtransverso, antrorsum angustato, lateribus rotundato, parce punctato, canaliculato, antice transversim impresso, elytris albicantibus, seriatim punctatis, apice late flavis. Long. ·1.

These two species are very closely allied, yet the differences in the form of the thorax are sufficient to distinguish them. I have received them from Dr. Zimmerman.

b. Caput pone oculos modice angustatum; elytra confuse punctata.

3. M. niger, niger vix subtiliter pubescens, thorace valde transverso, lateribus rectis, angulis rotundatis, elytris subtilius scabro-punctatis, antennis, abdominis apice, pedibusque piceo-testaceis. Long. ·15.

Lake Superior; one male. The last superior joint of the abdomen is elongate, concave beneath, and has a short terminal appendage; the penis is exserted, and terminates in two large acute hooked lobes.

4. M. transversus, *fuscus* pubescens, thorace quadrato, angulis prominulis, lateribus rectis, obsolete punctulato, ad medium transversim impresso, elytris subtilissime punctulatis, antennarum basi testacea. Long. ·12. Niagara.

5. M. concavus, *fuscus* pubescens, thorace rufescente quadrato, angulis prominulis, lateribus rectis, obsolete punctulato, subcanaliculato, ad angulos anticos excavato, elytris subtilissime punctulatis, antennarum basi testacea. Long. ·13. New York.

6. M. exilis Mels. Pr. Ac. Nat. Sc. 2, 305. Pennsylvania and Georgia.

7. M. fragilis, *fuscus* vix pubescens, thorace transverso, tenuiter marginato, lateribus rotundatis, disco ad medium transversim impresso, elytris vix subtiliter punctulatis, antennarum basi pedibusque pallidis. Long. ·1.

β. Carolina and Lake Superior; differs from the preceding by the fuscous thorax, which is more rounded on the sides.

8. M. fusculus, *fuscus* vix pubescens, thorace transverso, tenuiter marginato, angulis vix rotundatis, lateribus rectis late impressis, elytris subtilissime scabris. Long. ·12.

One specimen, San Francisco. The antennæ and feet are entirely fuscous.

8. M. parvulus, fusco-pallidus, parce pubescens, capite nigro, thorace transverso lateribus rotundatis, non impresso, elytris vix punctulatis. Long. ·08.

New York and Lake Superior. In addition to the characters above, this species has much shorter antennæ than the others, and the terminal articulations are more rounded.

TRYPHERUS.

Antennæ tenues, articulo 2^{ndo} vix breviore; palpi maxillares articulo 2^{ndo} vix longiore, ultimo subtriangulari longiore; tarsi postici articulis gradatim brevioribus, articulo 4^{to} valde bilobato; ungues simplices, paranychio lato rotundato, intermedio muniti; elytra abdomine multo breviora; caput pone oculos vix angustatum.

The form of the palpi sufficiently distinguishes this genus from the preceding; it approaches much closer to Telephorus. The male has a small additional anal segment; the female has the penultimate joint of the abdomen deeply emarginate. In both sexes the superior segment is dilated, thickened at the edges and emarginate at apex, so that it projects on each side of the lower segment like a lateral appendage.

Another genus with short elytra, from Panama, approaches very closely to this, but the second and third joints of the antennæ together are not longer than the fourth; the palpi are strongly securiform, and the last joint of the tarsi has no appendage between the claws.

1. T. latipennis. *Malthinus latipennis* Germ. Ins. Nov. 72; *Molor-*

chus marginalis Say. Long Exped. to St. Peter's River 2, 192; *Malthinus marginalis* Say. Bost. Journ. Nat. Hist. 1, 160.

Common everywhere. Germar's description precedes Say's by several months. Say in the Bost. Journal misquotes himself, as there is no description of this species to be found in the Journal of the Academy of Natural Sciences.

TYTTHONYX.

Antennæ elongatæ, compressæ, valde serratæ, articulo 2^{ndo} sesqui minore; palpi articulo ultimo vix longiore, ovali acuto; tarsi postici articulo 1^{mo} elongato, 2—4 brevibus, omnes crassiusculi, articulo ultimo brevi, ungues parvi integri; caput pone oculos non angustatum.

1. T. erythrocephalus. *Lampyris erythrocephala* Fabr. Syst. El. 2, 105; *Malthinus serraticornis* Mels. Pr. Ac. Nat. Sc. 2, 305. Middle and Southern States.

Species unknown to me.

Lampyris ruficollis Say. J. Ac. Nat. Sc. 5, 161.

Luciola maculicollis Laporte. Ann. Soc. Ent. Fr. 2, 148.

Cantharis vittata Fabr. Ent. Syst. 1, 219.

Cantharis ligata Say. J. Ac. Nat. Sc. 5, 166.

Cantharis jactata Say. Ibid 5, 167.

Cantharis invalida Say. Bost. Journ. Nat. Hist. 1, 158.

Telephorus Westwoodii Kirby. Fauna Bor. Am. 4, 246.

Telephorus Samouelli Kirby. Ibid 246.

Telephorus fulvicollis Germ. Ins. Nov. 70.

Telephorus notatus Man. Bull. Mosc. 1843. California.

Rhagonycha piniphila Esch. Man. Bull. Mosc. 1843.

Rhagonycha sericata Man. Bull. Mosc. 1846, p. 511. These and the next are from Sitkha.

Rhagonycha binodula Man. Bull. Mosc. 1846, p. 512; an Podabrus lævicollis Lec.?

Malthinus abdominalis Dej. Cat. My specimen of this species is too imperfect for a satisfactory reference to any of the genera described above. From the form of the thorax and elytra, I think that it belongs to the genus alluded to as found at Panama. The following diagnosis will enable the species to be recognised: Rufus, capite pone oculos nigro, thorace quadrato, lateribus rectis, basi rotundato, ad medium late transversim concavo, elytris fuscis, subtilissime scabris, pedibus fuscis. Long. ·26. Georgia; rare.

The Committee on Mr. Cassin's description of new species of Birds, reported in favor of publication.

Descriptions of birds of the genera Laniarius, Dicrurus, Graucalus, Manacus and Picus, specimens of which are in the collection of the Academy of Natural Sciences of Philadelphia.

BY JOHN CASSIN.

1. *Laniarius carbonarius*, nobis.

Form. Strong and rather heavy, wings short with the fourth, fifth, sixth and seventh quills longest and nearly equal, tail rather short, somewhat rounded and with all the feathers having a crimped appearance throughout their length. Plumage of the rump long and silky. About the size of *Dryoscopus rufiventris*, (Swainson.)

Dimensions. Total length of skin from tip of bill to end of tail about 8½ inches, wing 3¾, tail 3½ inches.

Colors. Entire plumage above and below brownish black, palest on the quills, feathers of the rump paler at their basis, bill black.

Hab. Western Africa, discovered by Robert MacDowell, M. D., late of Sierra Leone.

Obs. This species resembles no other with which I am acquainted. Its rather short wings and tail give it more the general appearance of a *Thamnophilus* than I have noticed in any other African species. It is peculiar, so far as I know, for the uniform color of its plumage, which is (rump included) black.

2. *Dicrurus aculeatus,* nobis.

Form. Small, but rather larger than *D. Ludwigii,* A. Smith. Bill rather long, curved at the tip, toothed and sharply pointed; wings with the fourth quill slightly longest, but the third, fourth and fifth nearly equal; tail distinctly though not deeply forked.

Dimensions. Total length of skin from tip of bill to end of tail about 7½ inches, wing 4¾, tail 3¾ inches.

Colors. Entire plumage black with a greenish lustre, inner webs and under surface of quills pale brownish, bill and feet black.

Hab. Fazogloa, Eastern Africa.

Obs. Resembles *D. musicus,* Vieill., but is smaller and has the bill longer and much stronger, comparatively; it is smaller also than *D. canipennis,* Swainson, which it somewhat resembles in having the light colored webs of the quills, but can easily be distinguished by its shorter wings and tail and stronger bill. It is larger than *D. Ludwigii,* A. Smith, and differs from all the species here mentioned in the relative lengths of the quills. Bonaparte is mistaken in making *D. emarginatus* (Licht.) a distinct species,—it is described by Lichtenstein in Verzeichniss, p. 52, and there expressly stated to be the bird figured by Le Vaillant, p. 167, (which is *D. musicus,* Vieill.)

3. *Graucalus azureus,* nobis.

Form. Small, about the size of G. hypoleucus, Gould. Specimen now about to be described not in good plumage, ends of quills and tail feathers worn, wings rather long.

Dimensions. Total length of skin from tip of bill to end of tail about 7½ inches, wing 4½, tail about 4 inches.

Colors. Front, extending to each eye, quills and tail black, entire plumage of other parts light blue, tertiaries tipped with irregular lines of white and black.

Hab. Western Africa, discovered by Robert MacDowell, M. D., late of Sierra Leone.

Obs. This species which is remarkable for its color, appears to resemble the bird figured in Voyage au Pole Sud (Astrolabe & Zelée) Ois. pl. 9, fig. 3, which is named in Bonaparte's Consp. Av. "*Graucalus Boyeri.*" It is however, much smaller. I have seen only the specimen now described.

4. ***Manacus flaveolus***, nobis.

Form. Very similar to those of *M. gutturosus*, (Desm.) and *M. Candei*, (Parz.)

Dimensions. Total length of skin from tip of bill to end of tail about 3¾ inches, wing 2, tail about 1¼ inches.

Colors. Very similar to those of *M. gutturosus*, but with the parts which are white in that species, pale yellow in this. Top of the head, back, wings and tail, black; throat, breast, shoulders and broad collar around the back of the neck, pale yellow, running into cinereous on the abdomen.

Hab. Bogota, New Grenada.

Obs. Two specimens of this little bird are in the collection, labelled as coming from Bogota, and both presenting the singular variation in color, from the common *M. gutturosus*, on the strength of which I have considered it specifically distinct. In point of color it may be stated as intermediate between *M. gutturosus* and *Candei*. It is smaller than the latter.

5. ***Picus thyroideus***, nobis.

Form. Similar to that of *P. varius*, Linn., but rather larger and stouter, wings with the third quill longest, legs and toes rather slender, tail rather broad.

Dimensions. Total length of skin from tip of bill to end of tail about 8¾ inches, wing 5¼, tail 3¾ inches.

Colors.— ♀ *Breast* with a large transverse patch or belt of black; middle of the abdomen pale yellow. Head and throat brownish buff, with obscure longitudinal stripes of black, back, wing coverts, sides of the body beneath and under tail coverts striped transversely with black and sordid yellowish white, rump and upper tail coverts white, the latter with black marks on their outer webs; quills, and tail black, more or less spotted with white.

Hab. California, discovered by Mr. John G. Bell, of New York.

Obs. Mr. Bell's two specimens are females, and are as yet unique. This species is a strict congener of *Picus varius*, Linn., but does not resemble it in colors, nor any other species which I have met with.

The Committee on Dr. Leidy's paper entitled, "Contributions to Helminthology," reported in favor of publication in the Proceedings.

Contributions to Helminthology.

By Joseph Leidy, M. D.

MICROSTOMUM? *Oersted.* (Eustomum.)

Body elongated, compressed cylindroid, vibrillated; increasing by transverse segmentation in pairs. Head continuous with the body, furnished upon each side with a respiratory fovea. Mouth antero-inferior; intestinal canal produced anterior to the mouth in the form of a coecum; œsophagus amphoraform, muscular, not protractile; anus at first (after segmentation) open, afterwards becoming closed. Ocelli none. *Minute rhabdocœla inhabiting fresh water.*

This genus is the Microstomum of Oersted, if what I have observed to be lateral respiratory foveæ of the head are, according to him and other authors, ocelli destitute of pigment.

In numerous individuals of what I have considered below to be of three distinct species of the genus, they were always observed to be in a state of division by pairs, and the primary pair of segments about their middle had already developed respiratory foveæ, and were slightly indented preparatory to division before the first pair were separated.

1. Microstomum (*Eustomum*) Philadelphicum, *Leidy*.

Body linear, slightly attenuated posteriorly; head conoidal, with the apex surmounted by a small oval papilla; tail obtusely rounded. Respiratory fovea sub-hemispherical, placed at the base of the cone of the head. Mouth oval, protractile; œsophagus keg-shaped, intestine narrowed, cylindroid, dilated at the commencement. Colorless, translucent, vibrillated; increasing by transverse segmentation, always observed in the process of forming two segments.

Length 2-5ths line, by 1-500th in. broad.

Habitation. Found in the water of marshes and ditches in the neighborhood of Philadelphia.

2. Microstomum (*Eustomum*) variabile, *Leidy*.

Body broad, linear; anteriorly and posteriorly obtusely rounded. Respiratory fovea, longitudinally oval, lateral. Intestine very broad. Colorless, increasing by twos.

Length from 1-80th to 1-24th of an inch by 1-800th to 1-400th in. broad.

Habitation. With the preceding.

3. Microstomum (*Eustomum*) caudatum, *Leidy*.

Body long, narrow, linear; anteriorly obtusely rounded, posteriorly ending in a narrow, blunt, elevated tail 1-400th in. long from the position of the anus; increasing by twos, the tail of the anterior segments projecting above and its whole length posterior to the head of the succeeding segment.

Length 3-4ths to 1½ lines; breadth 1-300th to the 1-250th in.

Habitation. With the preceding.

Rhynchodemus sylvaticus, *Leidy*: Pr. A. N. S. v, 289. Error of reference.
Planaria sylvatica, *Leidy*: ib. 241.

Stylaria fossularis *Leidy*: ib. 287. A number of individuals in a state of segmentation, from which the species was first described, preserved alone in a glass vessel with some confervæ, upon the occurrence of cold weather passed into the perfect condition as follows:

Body long, cylindroid, hyaline, permitting the ash-colored or yellowish intestine to be seen through the integument, divided into from 50 to 65 annulations, furnished with a distinct girdle posterior to the third annulus from the mouth, which extends the breadth of three annuli. Podal hooks in fasciculi of 10 to 12. Setæ commencing after the girdle, usually one often two upon each side of the annuli. Head obtusely rounded and prolonged into a cylindroid, very moveable, digitiform, transversely wrinkled proboscis. Caudal annulus terminating in two short lobes

Length 3-4ths to 1 inch; breadth 1-5th to 1-4th of a line. Length of proboscis 1-20th inch.

Remarks upon the habits.—When at rest the worm lies with the anterior four-fifths of the body upon the surface of the mud at the bottom of the water, with the tail fifth buried. It is very active in its movements. It also constructs tubes of mud. It is hermaphrodite, and copulates in the same manner as the earth worms.

In a number of individuals I observed bunches of spermatozoa, and in several of the same from three to five nearly completely formed ova placed just posterior to the girdle.

The eggs when extruded were attached to the inside of the vessel in which the worms were kept. They consisted of an oblong quadrilateral translucent, whitish, papyraceous web, enclosing a light amber colored, bottle-like case, with an open neck, and the body containing an opaque white globular mass; the true egg.

The perfect worm after living about two months died. Some of the ova several weeks after their extrusion were observed to have the young almost perfected, and these a few days after their escape presented the following characters:

Body cylindroid, divided into 35 annulations, each with a pair of fasciculi of 4 or 5 hooks; posterior to the first three also provided on each side with one or two setæ. Tail bilobed. Head as in the parent. No girdle; no indication of division; and no apparent developing annuli at the tail end. Length 2 lines.

The Committee on Dr. Le Conte's paper, concluding his descriptions of the Longicorn Coleoptera of the United States, reported in favor of publication in the Journal.

The Committee, consisting of Dr. J. C. Fisher, Wm. S. Vaux and Dr. Bridges, appointed at a late meeting "to inquire into the expediency of enlarging the Hall of the Academy, so as to furnish greater accommodation for the Museum and Library, and to report a plan, with an estimate of the expense," offered a report, which was adopted, recommending the raising of the roof of the building sixteen feet higher, the division of the interior of the Hall into two compartments, by a floor thrown across from the second main gallery, and the opening of two windows into each hall on the north and south sides.

The entire expense of the improvement, as estimated by a contractor, was $6,500, to meet which the Committee proposed that subscriptions be solicited, both from members and from the citizens of Philadelphia.

Two resolutions appended to the report, one that it was expedient to enlarge the Hall according to the plan submitted, and to appoint a Committee for the purpose of obtaining subscriptions; and the second giving the form of the subscription, were also adopted. Action on a third resolution was postponed for the present.

The following reports were read and adopted:

LIBRARIAN'S REPORT

For 1851.

The rapid and steady progress which the Library has made during the past few years, in the departments of Natural and Physical Science, and various kindred subjects, has continued during the present year—the number of additions amounting to 2,262.

The usual table, showing the increase under each head, is herewith submitted:

Subject.	Volumes.	Periodicals and Serials.	Pamphlets.	Subject.	Volumes.	Periodicals and Serials.	Pamphlets.
General Natural History,	148	33	28	Brought over, - -	869	593	422
Mammalogy, . - -	14		11	Dictionaries of Arts and Sciences, - - - -	46	41	
Ornithology, - - -	31	16	18	Voyages and Travels, -	43	26	11
Entomology and Crustacea,	24	30	7	Agriculture and Useful Arts,	42		27
Ichthyology and Herpetology,	43	6	16	Bibliography, - - -	12		5
Conchology and Helminthology,	39		139	Biography, . - -	9		3
Geology and Mineralogy,	97	21	90	Education, - - -	3		4
Botany, - - - -	17	20	10	Geography, - - -	18		1
Anatomy and Physiology, -	41	5	40	History, - - -	6		
Physical Science, Chemistry, and Mathematics, -	32		51	Languages, - - -	14		
Medicine, - - - -	4		8	Miscellaneous, - - -	13		48
Transactions and Proceedings of Societies, Memoirs, Magazines, &c. &c., -	379	462	4	Maps and Charts, - 7			
	869	593	422		1075	660	521

Of the whole number, 42 have been contributed by authors; 32 by editors; 77 by Societies and Corporations; 927 by Dr. Wilson; 1,025 by Mr. Edward Wilson; 87 by other members and correspondents; 7 by Departments of the United States; and 65 have been derived from miscellaneous sources;—total 2,262.

In addition to these, nearly 700 volumes, periodicals, &c., and pamphlets presented by Mr. Edward Wilson, are also in the Hall, but not yet recorded. The entire number actually contributed this year, by this most zealous friend of our Institution, will not fall far short of 1,700 of all descriptions.

Although far distant from us, Mr. Wilson has manifested the liveliest interest in the success and advancement of the Academy, and has exerted his industry, and given his time and attention in searching out rare productions for its Library, to an extent which entitle him to our warmest thanks. Many of these works have been drawn from sources where they were nearly lost to science and the world.

For Dr. Wilson's contributions, numerous as ever, no additional commendation is needed here; his eulogy is already written on all around us.

Upon reference to the table, it will be seen that the additions to the different departments of Natural History form a large proportion of the whole number. Those also from authors, editors, societies, and from our own members and correspondents, are as numerous as usual. These latter have averaged, for successive years, several hundred volumes, periodicals and pamphlets, and, without other aid, would soon have filled our shelves.

We most cordially invite such contributions, which are gratifying, both as evincing a regard for the Institution, and as affording us opportunities for reciprocating. From Societies abroad, however, we have yet much to ask. Although in correspondence and exchange with many of them of the highest distinction, there are others which have failed to embrace the offers which we have extended to them. On this account foreign Societies, previously receiving our Journal and Proceedings, are now no longer on the exchange list, the only return for our publications having been formal acknowledgments of their receipt by these Societies. The value which we may now justly claim for the Journal and Proceedings of this Institution, entitles us to hope for a better and more liberal feeling hereafter.

Among the members of the Academy most conspicuous this year for contributions to the Library, I may mention Mr. George Ord and Mr. Robert Pearsall. To Mr. Ord we are indebted for 27 folio and quarto volumes of works; and to Mr. Pearsall for eight 4to and folio volumes of valuable dictionaries in foreign languages. To Mr. Haidinger, of Vienna, a correspondent of the Institution, we are under obligations for numerous works, of which he is either author or editor.

This constant and rapid influx of books and pamphlets has again nearly exhausted our available room. Scarcely two years have elapsed since the adjoining apartment was fitted up for the reception of books, yet but little space remains for additions, even in single volumes, and certainly none for any large series. Under such circumstances, and should our present rate of increase continue, it will be necessary to make further provision for accommodating the books. I therefore respectfully ask the early attention of the Society to this important matter, merely suggesting, on this occasion, that the apartment to the North of the one just referred to, and adjoining it, and now occupied as a duplicate room, and used also for unpacking parcels and boxes, could be very readily altered, at a moderate expense, and made to answer the required purpose.

I would also suggest to the Society the propriety of selling the duplicate volumes, now for the most part in the room last mentioned, and also the extensive series of French Documents. This will even be necessary, should the proposed alteration be determined upon, as no space could be spared for them, except in the cellar, where they would not be likely to benefit by the change.

The proceeds of the sale of these works would, even at auction rates, form a fund which could be most advantageously applied at present to Library purposes.

I also beg again to call the attention of the Society to a proposition made in the last report, viz: to extend the prohibition of taking books from the Hall to *all the works in the Library*. No reason now exists for permitting any work to leave the Hall, every facility for consulting them here being afforded, that can be asked for. Although thus far we have sustained no losses, nor has any injury been done, since their removal to the present apartment, yet future contingencies should be guarded against, and the fact steadily kept in view, that a single careless member may occasion a loss which neither time nor money could repair. The practice of loaning keys to strangers, who are usually irresponsible persons, and admitting them to the Library at hours when the proper officers are not present, is of very doubtful propriety, and, unless checked, may sooner or later cause the Society great regret.

Respectfully submitted by
Wm. S. Zantzinger,
Librarian.

REPORT OF THE CURATORS

For 1851.

The Museum of this Academy, placed under the charge of the Curators and the Committees of the several departments, continues, up to the present time, in the best state of preservation. The depredation of insects upon destructible objects appears to be completely under control, through the combined influence of the vapor of ether and the oil of turpentine.

The collection of Mammalia, during the past year, has been classified and arranged by Drs. Bridges and Fisher.

All departments have received valuable additions, as follows:

Mammalia.—Of this class there have been presented 28 specimens, comprising 20 species, among which was a remarkably fine specimen of a Polar bear, for which we are indebted to Dr. E. K. Kane, U. S. N.; also a large Rocky Mountain sheep, presented by the Smithsonian Institution. The others are principally from Dr. G. Watson, Mr. W. S. Wood, Dr. J. C. Fisher, and Mr. W. S. Vaux.

Aves.—42 bird skins and 17 species of eggs have been presented, chiefly by Col. Geo. A. McCall, U. S. A., Messrs. Joshua Lippincott, John Lambert, J. D. Sergeant, and Dr. G. R. B. Horner.

There were also presented 29 nests and eggs of common English birds by Edward Wilson, Esq.

Reptilia.—We are under obligation to Prof. Franklin Bache, for the original collection of reptiles formerly belonging to Dr. Jacob Green, consisting of 94 specimens in bottles and 15 species dried Cheloniæ. Besides these we have received 25 species, chiefly from Dr. G. Watson and Mr. R. H. Kern.

Pisces.—Of these 26 species have been presented, principally by Prof. F. Bache.

Mollusca.—306 species of shells have been added to our collection, the principal donors being Dr. J. L. Burtt, U. S. N., Dr. Wier Mitchell, and Dr. Thos. Stewardson.

Insecta.—Of which 200 species have been received, chiefly Coleoptera and Lepidoptera.

Crustacea.—To this department we have received the greatest accession. Altogether 2,384 specimens have been presented. Of these 1,482 specimens, comprising 410 species, constituted the collection of M. Guerin Meneville, presented to the Academy by Dr. T. B. Wilson.

Annelida and Myriapoda.—Of which we have had presented 12 species.

Zoophyta.—Of this class 117 specimens have been presented, chiefly by Mr. Edward Wilson.

Comparative Anatomy.—In this department there have been presented and deposited 43 crania of man, and other mammalia, 2 mounted skeletons, and 7 miscellaneous objects. In this collection are particularly worthy of notice, a very perfect skeleton of a Narwhal with a tusk 8 feet in length, and four crania of the polar bear, male and female, presented by Dr. E. K. Kane.

The other skeleton presented is a remarkably fine one of a dog, articulated by Mr. Robert Nash, and obtained from Dr. F. W. Lewis.

Botany.—73 species of dried plants and fruits have been added to our collection, of which 64 species consist of fresh-water and marine algæ, presented by Mr. John Hooper, of New York.

Palaeontology.—380 species of fossils have been received, among which are 42 species of minute and rare Eocene tertiary British fossils, arranged upon tablets accompanied by magnified views, prepared by the British Natural History Society, presented by Dr. T. B. Wilson. Also, the specimens from which were described the Crocodilus antiquus *Leidy*, and Balæna prisca *Leidy*, from the Miocene tertiary of Virginia, presented by Mr. Robert E. Nash; and the original specimens from which was described the Platygonus compressus *Le Conte*, presented by Dr. J. L. Le Conte.

Mineralogy.—238 specimens of minerals have been presented. Among these was a remarkably fine large group of crystals of quartz, from Cochin China, presented by Dr. J. L. Burtt, and some fine specimens of Red Chabasie (Acadialite), Stilbite, &c., from Nova Scotia, presented by our correspondent, J. L. Chipman, Esq. The remainder were obtained principally from Dr. W. L. Sherman, U. S. N., and Mr. W. S. Vaux.

As valuable additions to the Academy, for the use of its members, are two excellent compound achromatic microscopes, one manufactured by Oberhaüser, and deposited by Dr. J. K. Mitchell; the other manufactured by Pritchard, and deposited by J. P. Wetherill, Esq.

Considering the very great value of the property of the Academy we cannot take too much care in its preservation, and without having the slightest wish that the access of the members themselves, to the Museum and Library, should be restricted, we think it would be of advantage if all were precluded from lending their keys of entrance to the building to any other than members or correspondents, excepting under such circumstances as a majority of the Curators and Librarian may deem advisable.

All of which is respectfully submitted by

Joseph Leidy,
Chairman of Curators.

The Annual Report of the Treasurer was read, and referred to the Auditors.

A note was read from Mr. Samuel Powel, declining a re-election as Recording Secretary, in consequence of the necessity of his prolonged absence from the city.

The following Committee was appointed to solicit subscriptions for the purpose of enlarging the Hall of the Academy, under the resolution adopted this evening: Dr. James C. Fisher, W. S. Vaux, George W. Carpenter, Dr. R. Bridges and J. Price Wetherill.

On motion of Dr. Coates, it was

Resolved, That members be precluded from lending their keys of entrance to the building, to any others than members or correspondents, excepting under such circumstances as a majority of the Curators and the Librarian may deem advisable.

The Society then proceeded to an election for officers for 1852. The following were duly elected.

President, - - - -	GEORGE ORD.
Vice Presidents, - - -	J. Price Wetherill, Robert Bridges, M. D.
Corresponding Secretary, -	John Cassin.
Recording Secretary, - -	B. Howard Rand, M. D.
Librarian, - - - -	Wm. S. Zantzinger, M. D.
Treasurer, - - - -	George W. Carpenter.
Curators, - - - -	Joseph Leidy, M. D. Wm. S. Vaux, Samuel Ashmead, John Cassin.
Auditors, - - - -	Wm. S. Vaux, Robert Pearsall, Samuel Ashmead.
Publication Committee, - -	Wm. S. Vaux, Robert Bridges, Thomas B. Wilson, M. D. Isaac Lea, W. S. W. Ruschenberger, M. D.

ELECTION OF MEMBER.

The Rev. John Patton, of Philadelphia, was elected a *Member* of the Academy.

DONATIONS TO MUSEUM

In Nov. and Dec., 1851.

November 4th.

Egg of Rhea Darwinii, and twenty-nine Nests and Eggs of English Birds. From Edward Wilson, Esq.

Megalosoma ———, from the Isthmus of Panama. From Dr. Coleman through Mr. Conrad.

Mounted Skeleton of Domestic Dog. Prepared by R. H. Nash. Presented by Dr. F. W. Lewis.

Twenty-nine specimens of Silurian Fossils, from Green Co., Kentucky. Presented by Dr. Carson.

Mounted specimens of Cercolabes myothemera and Pithecia rufibarba, ♂ and ♀. From Wm. S. Vaux, Esq.

November 11th.

One hundred and fifty-three specimens of Coleoptera, in exchange, from Prof. Bonsdorff.

Group of Mytilus, from Carthagena, and Graphic Granite, from the Wissahickon. From Mr. Isaac Lea.

Crystalline Flag, from the Iron Furnace, Spring Mills, Pa., and Micaceous Iron, from Unionville, Pa. From Mr. Charles E. Smith.

Fruit of a Coaco Palm, (Carozo, Humboldt?.) From Dr. J. C. Fisher.

Tail of Raia ———. From Mr. Ashmead.

November 18th.

Five specimens of Coal plants, from near Greensburg, Pa. From Edward Miller, Esq.

One hundred and sixty specimens of Marine Shells, chiefly from the West Coast of America. Presented by Dr. J. Wier Mitchell.

Entire Skeleton and Tusk of Monodon Monoceros, three Crania of the Polar Bear, (Ursus maritimus,) and a specimen of the Esquimaux Dog. Presented by Dr. E. K. Kane, U. S. N.

Dorsal vertebra of Balæna palæatlantica, Leidy, from Virginia. From Mr. Isaac Lea.

December 2d.

Mass of fossil Astræa, from Florida; Palm wood, from Antigua; and fissured Coal, from Lehigh, Pa. From Mr. A. N. McPherson through Dr. Watson.

Skins of Canis lupus, var. niger, from Germany; Canis lagopus, var. cæruleus, from Iceland; Canis vulpes, and Cervus capreolus, from Denmark; and Phoca cristata, from Greenland. From the Smithsonian Institution, in exchange.

Two specimens of Cygnus Americanus, killed at Long Beach, New Jersey. Presented by Mr. Joshua Lippincott, of Philadelphia.

One hundred and eighty-three species of fifty-three genera of Crustacea, being the remainder of the collection of M. Guerin Meneville. Presented by Dr. Thos. B. Wilson.

Three crania of Troglodytes gorilla, from Borneo; bones of two Skeletons of do.; and cranium of T. niger. Procured by Rev. Dr. Wilson, Missionary in Western Africa. Deposited by Dr. Wier Mitchell.

A collection of Coleoptera and Lepidoptera, from Brazil. From Mr. Isaac Lea.

The following Crania, received from Prof. Retzius, of Stockholm, were deposited as additions to the collection of the late Dr. Morton, by his Executors, Messrs. Vaux and Pearsall, viz.:—

An ancient Cimbric, an inhabitant of Sweden; two ancient Burgundians, from a tomb near Lausanne, in Switzerland, believed to have been 2000 years old; eight true Finns; three Swedish Finns (mixed;) two Swedes from Finland (colonists from remote time); three Swedes from Sundermanland; one ancient Cimbric Swede, probably descended from the oldest Scythic Turannic inhabitant, (Brachycephali,) which have always black hair and are of small stature; one hybrid Laplander; one true Laplander, taken in full dress from a coffin.

Also, one Calmuc skull, presented by Charles Cramer, Esq., of St. Petersburg, Russia; six crania of wolves, from Sweden, and one of Ovis montana.

December 9th.

Three fragments of a fossil human cranium and three teeth, from Santas, Brazil. Presented by Dr. Charles D. Meigs; previously deposited by him.

A Compound Achromatic Microscope, (Pritchard's.) Deposited by J. Price Wetherill, Esq.

Specimen of Algerite, from Sussex Co., New Jersey. From Mr. W. S. Vaux.

Twenty species of Unio, from Georgia. From Dr. Thos. Stewardson.

December 16th.

Original specimens of Platygonus compressus Le Conte. Presented by Dr. Le Conte.

Three fragments of the Jaw of a fossil Crocodile; several mollusks from the marl of New Jersey; Cranium of Fiber Zibethicus, dug from a marl pit in New Jersey; group of large Quartz crystals, of several pounds weight, from Cochin China. Presented by Dr. Burtt, U. S. N.

Five species of Ophiuridæ, from Panama. From Dr. J. L. Le Conte.

Thirty-three specimens of Minerals from Nova Scotia. From Isaac Chipman, Esq.

Fruit of a Palm, from Liberia. From Mr. William Ward.

DONATIONS TO LIBRARY

In Nov. and Dec., 1851.

November 4th.

A Synopsis of the Family of Naiades. By Isaac Lea. 2d ed. 4to. From the Author.

American Journal of Science and Arts. Nov., 1851. From the Editors.

Proceedings of the Boston Society of Natural History. Vol. 4. pp. 65—80. From the Society.

Researches upon the origin, mode of development and nature of the Spermatic particles among the four classes of Vertebrate Animals. By Waldo J. Burnett, M. D. From the Author.

Dr. Wilson presented the following, on the usual condition:—

Reports on the Fishes, Reptiles and Birds of Massachusetts. (G. B. Emerson.) 8vo.

Report on the Insects of Massachusetts injurious to vegetation. (T. W. Harris, M. D.) 8vo.

Reports on the Herbaceous Plants, and on the Quadrupeds of Massachusetts. (Rev. Chester Dewey and Ebenezer Emmons, M. D.) 8vo.

History of British Mollusca and their Shells. By Prof. Forbes and S. Hanley. Nos. 41 and 42.

Annales de la Société Entomologique de France. 2d series, Vol. 9, pt. 2.

Journal of the Royal Geographical Society of London. Vol. 20, pt. 2.

History of the British Crustacea. By Thos. Bell. Part 7.

Annals and Magazine of Natural History. 2d series, Vol. 8. Nos. 45 and 46.

Revue et Magasin de Zoologie. 1851. Nos. 7 and 8.

Illustrations of British Mycology. By Mrs. T. J. Hussey. 2d series. pts. 9 and 10.

The London Athenæum. September, 1851.

Conchologia Iconica. By Lovell Reeve. Part. 101.

The Genera of Diurnal Lepidoptera. By E. Doubleday, continued by J. O. Westwood. Pts. 47 and 48.

Comptes Rendus. Tome 33. Nos. 5 and 12.

The following were presented by Edward Wilson, Esq., on the usual condition:—

Description of the British Palæozoic Fossils of the Geological Museum of the University of Cambridge. By Frederick McCoy. Part 2. 4to.

The Zoologist. Nos. 97—101.

Narrative of an ascent to the summit of Mont Blanc, Aug. 18, 1822. By Frederick Clissold.

Geological Notes. By Henry T. De la Beche. 8vo.

Histoire naturelle des Mollusques terrestres et d'eau douce qui vivent en France. Par l'Abbé D. Dupuy. Part 4. 4to.

Memoires de la Société d'Histoire naturelle de Strasbourg. Vols. 1, 2, 3, and pt. 1, Vol. 4. 4to.

Abhandlungen der König. Gesellschaft der Wissen. zu Göttingen. Vols. 1, 2 and 3. 4to.

Proceedings of the Somersetshire Archæological and Natural History Society for 1849—'50. 8vo.

Arcana Entomologica. By J. O. Westwood. 2 vols. 8vo.

The Wisdom of God manifested in the Works of the Creation. By John Ray. Parts 1—4.

C. Linnæi Systema Naturæ. 2d ed. 1740; C. Linnæi Fundamenta Botanica. 2d ed. 1740. (In one vol. 8vo.)

The General Address of the Outinian Lecturer to his Auditors. 8vo.

Traité de la génération des Vers des Intestins, et des Vermifuges. Par M. Bloch. 8vo.

Proceedings of the Royal Irish Academy. Vol. 4.

Catalogue of the Library of the Royal Dublin Society. 8vo.

History of the Inductive Sciences. By the Rev. Wm. Whewell. 3 vols. 8vo.

Consolations in Travel; or the last days of a Philosopher. By Sir Humphrey Davy. 5th ed. 12mo.

Salmonia; or the days of Fly-fishing. By an Angler. 12mo.

Voyage historique de l'Amerique Méridionale. Par Don George Juan et par Don Antoine d'Ulloa. 2 vols. 4to.

Records of the Origin, and Proceedings of the Outinian Society. Vol. 1. Parts 1 and 2, 4to.

Histoire naturelle et morale des Iles Antilles de l'Amerique. 4to.

An account of the first discovery of Florida. By Wm. Roberts. 4to.

A voyage of discovery in H. M. S. Isabella and Alexander, for the purpose of exploring Baffin's Bay, and inquiring into the probability of a N. W. Passage. By John Ross. 4to.

The Natural and Civil History of the French Dominions in North and South America. By T. Jeffreys. Folio.

The History and Antiquities of Charnwood Forest. By T. R. Potter. 4to.

Nouveau Manuel complet d'Ornithologie domestique. Par R. P. Lesson. 12mo.

Les Perroquets; leur education, physique et morale. Par Michel. 12mo.

Faune Entomologique des Environs de Paris. Par MM. le Dr. Boisduval et Th. Lacordaire. Vol. 1, 12mo.

Musæum Tradescantianum. By John Tradiscant. 12mo.

Abhandlungen über die Gavial-Artigen Reptilien der Lias-formation von Dr. H. G. Bronn et Dr. J. J. Kaup.

Naturhistorische Tafeln des Thierreichs nebst Systematischen Namensverzeichnisse der darauf enthaltenen Gegenstande, &c. Von J. G. Lumnitzer. Folio.

Designs and Drawings of Birds and Animals by Wolf. Folio.

Description d'Ossements fossiles de Mammiferes inconnus jusqu'a present. Par J. J. Kaup; and Atlas.

Tables for the registration of periodic phenomena.

Prolusio anatomica de Sinibus frontalibus. Auctore J. J. Frid. Blumenbach.

Osteologie der Vögelfusse. Von Mag. Kessler in Petersburg.

Die Vögel Europàs. Von Ludwig S. von Moranville.

God in Science. A Lecture by the Rev. John Cumming, D.D., before the Young Men's Christian Association, Jan. 1851.

Observations on the Inhabitants, Climate, &c. made by John Bartram in his Travels from Pennsylvania to Canada. 8vo. 1751.

Illustrated Catalogue of hunting trophies, native arms and costumes from the far interior of South Africa, &c. By R. G. Cumming, Esq.

Facts, observations and conjectures relative to the generation of the Opossum of North America.

J. F. Blumenbachii specimen Archæologiæ Telluris terrarumque imprimis Hanoveranarum alterum.

Dissertation Zoologique et medicale sur le Tænia humain ou ver solitaire. Par Victor Amédée de Lisle.

De Salamandrarum corporibus adiposis ovariis et oviductibus, eorumque evolutione. Auctor M. H. Rathke.

November 11th.

Revision du genre Cottus des Auteurs. Par Ch. Girard. From the Author.

Report of the Commissioners of Patents for 1850. From U. S. Treasury Department.

Forhandlinger ved de Skandinaviske Naturforskeres femte mode der holdtes i Kobenhavn fra den 12th til del 17th Juli, 1847. From Prof. A. Retzius.

Phrenologien bedomd frau en Anatomisk standpunkt. Af Prof. A. Retzius. From the same.

Dr. Wilson presented the following, on the usual condition:

Annales des Sciences Naturelles. 2e serie. Zoologie 20 vols., Botanique 20 vols.

Bulletin de la Société Géologique de France. 1me serie, 14 vols.; 2e serie 7 vols. 8vo.

Memoires de la Société Géologique de France. 1me serie, vols. 1—3; vol. 4, 1me partie. 4to.

Comptes rendus. Tome 33, Nos. 13, 14 et index du tome 32.

Revue et Magazin de Zoologie, 1851, No. 9.

Encyclopedie Anatomique. Vols. 2—9, 8vo. Atlas 1, 2, 4to. Par A. J. L. Jourdan.

Memoires de la Société Ethnologique. Vols. 1 et 2, 8vo.

Traité de Physiologie considerée comme Science d'Observation. Par G. F. Burdach; traduit de l'Allemand par A. J. L. Jourdan. 9 vols. 8vo.

Memoires de la Société Linnéenne de Normandie, 1me serie, vols. 1—4; Atlas 1—3, 4to. 2e serie, vols. 1—4, 8vo.

Comptes rendus des Séances et Mémoires de la Société de Biologie. Tome 2, 8vo.

November 18th.

Pennsylvania Farm Journal. Edited by S. S. Haldeman. No. 8, Nov. 1851. From the Editor.

Catalogue of the Library of Harvard University. 4 vols. 8vo. and Supplement 1 vol. 8vo. From Dr. T. W. Harris, in the name of the President and Fellows of Harvard College.

Dr. Wilson presented the following on the usual condition:

Deutsches Archiv für die Physiologie. Herausgeg. von J. F. Meckel, 1me serie, 8 vols.

Archiv für Anatomie und Physiologie. Von J. F. Meckel. Vols. 1 to 6.

Nouveau Systéme de Physiologie végétale et de Botanique. Par F. V. Raspail. 2 vols. 8vo. and Atlas.

Archiv für Anatomie, Physiologie und Wissenschaftliche Medecin. Von Dr. J. Müller. 14 vols. 8vo.

Manuel de Physiologie. Par J. Mueller. 2 vols. 8vo.

Recherches Anatomiques et Physiologiques sur les Hemiptéres; sur les Orthoptéres; sur les Diptéres. Par M. Leon Dufour, (in 1 vol. 4to.)

Atlas de la Société Linnéene de Bordeaux, 2e serie, Tome 7, 1e liv.

Testacea novissima Insulæ Cubanæ et Americæ Centralis. Auctore Arthur Morelet. Part 2.

Anatomie du Cerveau dans les quatres classes des Animaux vertébrés. Par E. K. A. Serres. 2 vols. 8vo. and Atlas 4to.

Histoire naturelle des Poissons d'eau douce de l'Europe Central. Par L. Agassiz. Tome 1, 8vo. Tome 2, livs. 1 et 2, folio.

Monographies d'Echinodermes vivans et fossiles. Par L. Agassiz. Livs. 1—4, 4to; Atlas, folio.

Études critiques sur les Mollusques fossiles. Par L. Agassiz. Livs. 1—4, 4to.

Systematisches Concylien-Cabinet, von Martini und Chemnitz. Neu herausgeg. und vervollstandigt von H. C. Küster. Nos. 1—100, 4to.

December 2d.

Charleston Medical Journal and Review, Nov. 1851. From the Editors.

Memorias de la Real Academia de Ciencias de Madrid. Tomo 1, 1me partie, 4to. From the Academy.

Resumen de las Actas de la Academia Real de Ciencias de Madrid en el Ano Academico de 1849 a 1850 en la Seseon del dia 11 de Oct., por el Sec. perpet. Dr. Don Mariano Lorente. From the same.

Meteorological Register for twelve years, from 1831 to '42 inclusive, from observations made at the Military Posts of the United States. Prepared under the direction of Thomas Lawson, Surgeon General U. S. A., 8vo. From the U. S. Medical Bureau.

Ofversight af Kongl. Vetenskaps, Akademiens Förhandlinger 1848, 1849, 8vo. From the Academy.

Kongl. Vetenskaps Akad. Handlinger för ar 1848, 8vo. From the same.

Medallion (in copper) of Jacob Berzelius. From the same.

The following were presented by Dr. Wilson on the usual condition:

Zeitschrift für Malakozoologie. Von K. T. Menke und L. Pfeiffer, Nos. 1—5, 1851.

Journal of the Franklin Institute for Oct. & Nov. 1851.

The London Athenæum for October, 1851.

Histoire Naturelle des Poissons. Par le Baron Cuvier et M. Valenciennes, Texte 22 vols. 4to., Planches 4 vols. 4to.

Le Regne Animal. Par George Cuvier. Edition par une reunion des disciples de Cuvier, MM. Audouin, Blanchard, Alcide D'Orbigny, &c. 20 vols. 4to.

Revue Encyclopedique: publié par MM. Carnot et Leroux, 61 vols. 8vo.

Nouveau Dictionnaire d'Histoire Naturelle, 36 vols. 8vo.

December 9th.

Observations on the Genus Unio. By Isaac Lea. Vol. 2, 4to. From the Author.

Necrological Notice of the late Richard C. Taylor. By Isaac Lea. From the Author.

On the Genus Acostæa of D'Orbigny. By Isaac Lea. From the Author.

An Eulogium on Stephen Elliott, M.D. By James Moultrie, M. D. From the Author.

Memorial from Pennsylvania on the Manufacture of Iron, with other documents: published in behalf of the Convention of Iron-Masters. From W. Parker Foulke, Esq.

The following were presented by Dr. Wilson on the usual condition:

The Cyclopædia of Anatomy and Physiology. Edited by Robert B. Todd, M.D. Parts 1 to 41, 8vo.

Footprints of the Creator, or the Asterolepis of Stromness. By Hugh Miller. 8vo.

The Edinburgh New Philosophical Journal: conducted by R. Jameson. Vols. 1 to 50. 8vo., and Nos. 101 102.

The London, Dublin and Edinburgh Philosophical Magazine and Journal of

Science, 3d series, complete to Dec. 1850; 4th series, from Jan. to Oct. 1851, and Supplement to June, 1851.

Travels in the Island of Iceland in 1810. By Sir Geo. Mackenzie. 2d ed. 4to.

A Voyage round the World in H. M. Sloop Resolution, Capt. Cook, in 1772, '3, '4, '5. By George Forster. 2 vols. 4to.

A Journey from Prince of Wales' Fort in Hudson's Bay, to the Northern Ocean, in 1769, '70, '71, '72. By Samuel Hearne. 4to.

Journal of the Horticultural Society of London, vols. 1 to 5, and vol. 6, pts. 1 to 4. 8vo.

Transactions of the Horticultural Society of London. Vol. 7, 1st series; vols. 1, 2, 3, 2d series. 4to.

Outlines of Mineralogy, Geology and Mineral Analysis. By Thomas Thomson, M.D. 2 vols. 8vo.

System of Geography. By M. Malte Brun. Vols. 1—9. 8vo.

December 16th.

Annales de la Société Entomologique de France. 2d series 3^{me} No. de 1851. From Dr. Wilson.

Comptes Rendus. Tome 33. Nos. 15—18. From the same.

Annales des Mines. 4^{me} serie, 3^{me} liv. de 1851. From l'Ecole des Mines.

Annals of the Lyceum of the Nat. History of New York. Vol. 5. Nos. 4 and 5. From the Lyceum.

Shells of New England. A revision of the Testaceous Mollusks of New England. By William Stimpson. From the Author.

General Remarks upon the Coleoptera of Lake Superior. By John L. Leconte, M.D. From the Author.

Pennsylvania Farm Journal, No. 9, Dec. 1851. From the Editor.

Annales de l'Observatoire Physique Central de Russie, publié par ordre de l'Empereur Nicholas I. Par A. T. Kupffer. An 1847, Nos. 1, 2.

The following were presented by Edward Wilson, Esq., on the usual condition:

Die Famille der Eisvögel (Alcedidæ) Von J. Kaup.

Corrigirte Uebersicht der Falconidæ. Von Kaup.

The third tribe of the Picæ may well be termed Heterodactyli.

Vertheidigung meines Systems der Falken und Eulen gegen den Conspectus des Prinzen Ch. Bonaparte. Von J. Kaup.

Remarks on the modes of variation of nearly affined species or races of Birds, chiefly inhabitants of India. By E. Blyth.

Conspectus of the Ornithology of India, Burmah and the Malayan Peninsula. By E. Blyth, Esq.

December 23d.

The following were presented by Dr. Wilson on the usual condition:

Monograph of the Trochilidæ. By John Gould. Part 2, folio.

Conchologia iconica. By Lovell Reeve. Part 102.

Annals and Magazine of Natural History. Vol. 8, 2d series, No. 47.

Susemihl's Vögel Europas. 36 Leiferung.

Transactions of the Royal Society of Edinburgh. Vol. 20. Parts 1 and 2, 4to.

Illustrations of British Mycology. By Mrs. T. J. Hussey. 2d series, Part 2.

The Genera of Diurnal Lepidoptera. By E. Doubleday; continued by J. O. Westwood. Part 49.

CATALOGUE

OF THE

CAPRIMULGIDÆ

IN THE COLLECTION OF

THE ACADEMY OF NATURAL SCIENCES

OF PHILADELPHIA.

BY

JOHN CASSIN.

NOVEMBER 1, 1851.

Family CAPRIMULGIDÆ.

I. *Subfamily CAPRIMULGINÆ.*

1. Genus CAPRIMULGUS, Linn.

1. CAPRIMULGUS EUROPÆUS, Linn. *Syst. Nat.* i. p. 346. *Selby, Ill. Brit. Orn.* i. pl. 42.*
   Caprimulgus punctatus, *Meyer. Tasch.* i. p. 284.
   Caprimulgus maculatus, *Brehm. Vög. Deuts.* p. 131.
   Caprimulgus vulgaris, *Vieill. Faune Française* i. p. 140. *Roux, Orn. Prov.* i. p. 240, pl. 147.
   1. Adult male, France. Presented by Mr. W. S. Warder.
   2, 3, 4. Adult males, Europe, from the Rivoli collection.
   5. Male, Europe, from the same.
   6. Female, Europe, from the same.

2. CAPRIMULGUS SMITHI, Bonap. *Consp. Av.* p. 59. *A. Smith, Ill. S. Af. Zool. Aves*, pl. 102.
   "Caprimulgus europæus, Auct." *A. Smith, Ill. S. Af. Zool. Aves*, p. (No. 22.)
   "Caprimulgus capensis, Verreaux." *label on specimens from Mr. Verreaux.*
   1. Adult male, Cape of Good Hope. Presented by Mr. J. P. Verreaux.
   2. Adult female, Cape of Good Hope. Presented by the same.
   3. Female, Southern Africa. Presented by the same.

3. CAPRIMULGUS RUFICOLLIS, Temm. *Man.* i. p. 438. (1820.) *Gould, B. of Europe*, pl. 52.
   Caprimulgus rufitorquis, *Vieill. Ency. Meth.* ii. p. 546. (1823.)
   Caprimulgus rufitorquatus, *Vieill. Faune Française* i. p. 142.
   1, 2. Adults, Tangier, from the Rivoli collection.
   3. Younger, Northern Africa, from the same.

4. CAPRIMULGUS PECTORALIS, Cuvier. *Regne An.* i. p. 376. (1817.) *Le Vaill. Ois. d'Af.* i. pl. 49.
   Caprimulgus africanus, *Stephens. Gen. Zool.* x. pt. i. p. 157.
   "Caprimulgus asiaticus, Lath." *Vieill. Nouv. Dict.* x. p. 238. *Griff. Cuv.* vii. p. 75.
   1. Adult male, Cape of Good Hope, from the Rivoli collection.
   2, 3. Young males, Cape of Good Hope. Presented by Mr. J. P. Verreaux.
   4. Adult female, Cape of Good Hope. Presented by the same.
   5. Very young, Cape of Good Hope.

"Caprimulgus macrourus, Horsf." *Blyth. Jour. As. Soc. Beng.* xi. p. 586 (not of xiv. p. 204.)
"Caprimulgus gagateus, Strick." *Blyth. Jour. As. Soc. Beng.* xiv. p. 205.
"Caprimulgus innotatus, Hodg." *J. E. Gray. Cat. Brit. Mus. Fissirostres* p. 8.
Caprimulgus bimaculatus, *Peale. Zool. Voy. Vincennes and Peacock* p. 170.

1. Adult male, India, from Capt. Boys' collection.
2. Adult female, India, from the same.
3. Adult, India, from the Rivoli collection.
4. Adult, India.

13. **CAPRIMULGUS MACRURUS**, Horsf. *Trans. Linn. Soc. London*, xiii. p. 142. *Gould, B. of Aust.* ii. pl. 9.
Caprimulgus atripennis, *Jerdon. Ill. Ind. Orn.* p. (*art. Cap. indicus.*)

1, 2. Adults, Sumatra.
3, 4. Younger, Sumatra, from the Rivoli collection.
5. Adult male, Port Essington, from Mr. Gould's collection.
6. Adult female, Port Essington, from the same.

14. **CAPRIMULGUS ASIATICUS**, Lath. *Ind. Orn.* ii. p. 588. *Gray, Ill. Ind. Zool.* pl. 34, fig. 2.
Antrostomus californianus, *Bonap. Consp. Av.* p. 61?

1, 2. Adult, India. Presented by Mr. Thomas Ryan.
3. Adult male, India, from Capt. Boys' collection.
4. Adult, India, from the Rivoli collection.
5, 6. C. asiaticus? (smaller) India, from Capt. Boys' collection.
7. the same, India. Presented by M. Burrough, M. D.

15. **CAPRIMULGUS INDICUS**, Lath. *Ind. Orn.* ii. p. 588.
Caprimulgus cinerascens, *Vieill. Nouv. Dict.* x. p. 233.

1. Adult female, India, from Capt. Boys' collection.
2, 3. younger, India, from the Rivoli collection.

16. **CAPRIMULGUS MONTICOLUS**, Franklin. *Proc. Zool. Soc. London*, 1831, p. 116.
"Caprimulgus gymnopus, Hodg. Gray, Zool. Misc. p. 82." *Gray. Cat. Fiss.* p. 8.

1. Adult male, India, from Capt. Boys' collection.
2. Adult male, India.
3. Female, India, from the Rivoli collection.
4. Adult, India.

17. **CAPRIMULGUS AFFINIS**, Horsfield. *Trans. Lin. Soc. London*, xiii. p. 142.
"Caprimulgus bisignatus, Boie." *Label on specimens received from the Leyden Museum.*

2. Genus NYCTIBIUS, Vieillot.

1. NYCTIBIUS GRANDIS, (Gm.) *Gray's Genera of Birds*, pl. 16.
Caprimulgis grandis, *Gmelin. Syst. Nat.* i. pt. ii. p. 1029.
Caprimulgus maximus, *Shaw. Mus. Lev.* pl. 33.
1. Adult, Surinam. Presented by C. Hering, M. D.
2. Adult, Cayenne, from the Rivoli collection.

2. NYCTIBIUS ÆTHEREUS, (De Wied.)
Caprimulgus æthereus, *De Weid. Reise nach Brasilien*, i. p. 236.
"Caprimulgus longicaudatus, Spix." *De Wied. Beitr. zur Nat. von Bras.* iii. p. 303.
1. Adult, South America, from the Rivoli collection.
2. Adult, South America.

3. NYCTIBIUS LONGICAUDATUS, (Spix.) *Spix, Av. Bras.* ii. pl. 1.
Caprimulgus longicaudatus, *Spix, Av. Bras.* ii. p. 1.
1. Adult, Cayenne, from the Rivoli collection.

4. NYCTIBIUS JAMAICENSIS, (Gm.) *Gosse, Ill. B. of Jamaica*, pl. 6.
Caprimulgus jamaicensis, *Gmelin. Syst. Nat.* i. pt. ii. p. 1029.
Caprimulgus griseus, *Gmelin. Syst. Nat.* i. pt. ii. p. 1029. ?
Caprimulgus cornutus, *Vieill. Nouv. Dict.* x. p. 245, (1817.)
"Caprimulgus Gouldii," *Catalogue of Rivoli Collection*, p. 17.
"Caprimulgus longicaudatus, Spix." *D'Orbigny. Guérin's Mag.* 1837, p. 67.
Nyctibius pectoralis, *Gould.* ("*Proc. Zool. Soc. London*, 1838, p. ?") *Icon. Av.* pl. 16.
Nyctibius urutau, *La Fresnaye. Guérin's Mag. de Zool.* 1837, p. 28.
1. Adult, Surinam. Presented by Constantine Hering, M.D.
2, 3. Adult, Cayenne, from the Rivoli collection.
4. Adult, Bahia.
5. younger, South America.
6. very young, Surinam. Presented by C. Hering, M.D.

5. NYCTIBIUS LEUCOPTERUS, (De Wied.) *Des Murs, Icon. Orn.* pl. 49, 50.
Caprimulgus leucopterus, *De Wied. Reise*, ii. p. 227.
1. Female, South America, from the Rivoli collection.

6. NYCTIBIUS BRACTEATUS, Gould. *Proc. Zool. Soc. London*, 1846, p. 1.
Nyctibius rufus, *Cabanis. Schomburgk Reisen Brit. Guiana*, iii. p. 711, (1848.)
1. Adult ? South America.

3. Genus BATRACHOSTOMUS, Gould.

1. BATRACHOSTOMUS JAVANENSIS, (Horsf.) *Zool. Res. Java*, pl.
Podargus javensis, *Horsfield. Linn. Trans. London*, xiii. p. 141.
"Podargus cornutus, Horsf." *Temm. Pl. col.* 159.
1. Adult, Java, from the Rivoli collection.
2. Adult male, Java.

2. **BATRACHOSTOMUS STELLATUS**, Gould. *Proc. Zool. Soc. London*, 1837, p. 43.
"Podargus crinifrons, Temm." *Bonap. Consp. Av.* p. 57.

1, 2. Adult males, Borneo.
3, 4. Adult females, Borneo.
5. young female, Borneo.
6. female.

3. **BATRACHOSTOMUS PARVULUS**, (Bonap.) *Conspectus Avium*, p. 57.
"Podargus parvulus, Temm. Mus. Lugd." *Bonap. ut sup.*
Batrachostomus affinis, *Blyth. Jour. As. Soc. Bengal*, xvi. pt. ii, p. 1180?

1. Adult male, Indian archipelago.
2. Adult female, Indian archipelago.

4. **BATRACHOSTOMUS AURITUS**, (Vig.) *Gould, Icones Av.* pl.
Podargus auritus, *Vigors. Griffith's Cuv.* vii. p. 114, (1829.) *Mem. Raffles App.* p. 652, (1830.)
Bombycistomas Fullertonii, *Hay. Jour. As. Soc. Beng.* 1841, p. 574.

1. Adult, Malay Archipelago. Presented by Mr. Thomas Ryan.
2. Adult male, Malacca.

4. Genus LYNCORNIS, Gould.

1. **LYNCORNIS TEMMINCKII**, Gould. *Icones Avium*, p. pl. (1838.)
"Caprimulgus imberbis, Temm." *Gould ut sup.*
Caprimulgus pulcher, *Hay. Madras Jour. Lit. & Sci.* xiii. p. 161, (1845.)

1, 2. Adult males, Borneo.
3. Adult female, Borneo.
4. Adult female.

III. *Subfamily* PODARGINÆ.

1. Genus PODARGUS, Cuvier.

1. **PODARGUS HUMERALIS**, Vig. and Horsf. *Linn. Trans. London*, xv. p. 198. *Gould B. of Aust.* ii. pl. 3.
Podargus australis, *Stephens. Gen. Zool.* xiii. p. 92, (part ii.)?
Caprimulgus gracilis et strigoides, *Lath. Ind. Orn. Supp.* p. 58?
Caprimulgus podargus, *Dumont. Dict. des Sci. Nat.* xiv. p. 504?
Podargus cinereus, *Vieill. Nouv. Dict.* xxvii. p. 151?

1, 2. Adult males, Australia, from Mr. Gould's collection.
3. Adult female, Australia, from the same.
4, 5. Adults, Australia, from the Rivoli collection.
6. very young, Australia.

2. Podargus Cuvieri, Vig. and Horsf. *Linn. Trans. London*, xv. p. 200. *Gould*, *B. of Aust.* ii. pl. 4.
1. Adult male, Van Diemen's Land, from Mr. Gould's collection.
2. Adult male, Australia, from the same.
3, 4. Adult females, Van Diemen's Land, from the same.
5, 6. young, Van Diemen's Land, from the same.

3. Podargus megacephalus, (Lath.)
Caprimulgus megacephalus, *Latham. Index Orn. Supp.* p. 58.
"Podargus Stanleyanus, Lath. MSS." *Vig. & Horsf. Linn. Trans. London*, xv. p. 197.
1, 2. Adults, Australia, from Mr. Gould's collection.

4. Podargus phalænoides, Gould. *Proc. Zool. Soc. London*, 1839, p. 142. *B. of Aust.* ii. pl. 5.
1, 2. Adult males, Port Essington, from Mr. Gould's collection.
Adult female, Port Essington, from the same.

5. Podargus brachypterus, Gould. *Proc. Zool. Soc. London*, 1840, p. 163.
1. Adult male, Australia, from Mr. Gould's collection.
2. Adult female, King George's Sound, from the same.
3, 4. Adults, Port Lincoln, from the same.
5. Adult, Swan River, from the Rivoli collection.

6. Podargus plumiferus, Gould. *Proc. Zool. Soc. London*, 1845, p. 104. *B. of Aust.* ii. pl. 6.
1. Adult male, Australia, from Mr. Gould's collection.
2. female? Australia, from the same.

7. Podargus papuensis, Quoy and Gaim. *Voy. Astrolabe, Zool.* i. p. 207. *Ois.* pl. 13.
1. Adult, Cape York.

2. Genus ÆGOTHELES, Vig. & Horsf.

1. Ægotheles novæ-hollandiæ, (Lath.) *Gould, B. of Aust.* ii. pl. 1.
Caprimulgus novæ-Hollandiæ, *Latham. Ind. Orn.* ii. p. 588.
Caprimulgus vittatus, *Latham. Ind. Orn. Supp.* p. 58.
Caprimulgus cristatus, *Shaw. White's Voy.* p. 241, pl. 29.
Ægotheles australis, *Swainson. Cab. Cy. Birds*, ii. p. 338.
Ægotheles lunulatus, *Jard. & Sel. Ill. Orn.* pl. 149.
1, 2. Adult males, Australia, from Mr. Gould's collection.
3. Adult female, Australia, from the same.
4. Adult female, Van Diemen's Land, from the same.
5. young female, Australia, from the same.
6. female, Australia, from the Rivoli collection.
7. young male, Australia, from the same.
8. young male, Van Diemen's Land.
9. Adult, Australia.

2. ÆGOTHELES LEUCOGASTER, Gould. *Proc. Zool. Soc. London*, 1844, p. 106. *B. of Aust.* ii. pl. 2.

1. Adult male, Port Essington, from Mr. Gould's collection.
2. Adult female, Port Essington, from the same.

IV. *Subfamily CHORDEILINÆ.*

1. Genus CHORDEILES, Swainson.

1. CHORDEILES VIRGINIANUS, (Briss.) *Aud. B. of Am.* pl. 147.
Caprimulgus virginianus, *Brisson. Orn.* ii. p. 477.
Caprimulgus americanus, *Wilson. Am. Orn.* v. p. 65, pl. 40.
Caprimulgus popetue, *Vieillot. Ois. d'Am. Sept.* i. p. 56, pl. 34.

1. Adult male, Chester county, Pennsylvania. Presented by J. K. Townsend, M. D.
2. Adult female, same locality. Presented by the same.
3, 4. Adult males, near Philadelphia.
5, 6, 7. Adults, North America, from the Rivoli collection.
8. Young male, Mexico, from the same.
9. Younger, Bogota ? from the same.
10. female, Nicaragua, from M. de Barucil's collection.

2. CHORDEILES BRASILIANUS, (Gm.)
Caprimulgus brasilianus, *Gmelin. Syst. Nat.* i. pt. ii. p. 1031.
Caprimulgus variegatus et noitibo, *Vieill. Nouv. Dict.* x. p. 238, 241.
" Caprimulgus jaspideus, Merrem," *Bonap. Consp. Av.* p. 61.
" Caprimulgus Guianensis, Linn," *Sonnini. Voy. Azara*, (French ed. 1809,) iv. p. 120.
" Caprimulgus semitorquatus, Linn. Gm. Lath," *De Wied. Beit.* iii. p. 330.

1. Adult, Cayenne, from the Rivoli collection.
2. Adult male, Columbia.
3. Female, South America, from the Rivoli collection.
4. Male, South America, from the same.
5, 6. Adults, Nicaragua, from M. de Barueil's collection.

3. CHORDEILES ACUTIPENNIS, (Bodd.) *Buff. Pl. Enl.* 732.
Caprimulgus acutipennis, *Boddaert. Tab. Pl. Enl.* p. 46, (1783.)
Caprimulgus acutus, *Gmelin. Syst. Nat.* i. pt. ii. p. 1031.
Caprimulgus pruinosus, *Tschudi. Av. Consp.* p. 8. *Faun. Per. Aves.* pl. 6.
Caprimulgus exilis, *Lesson. Rev. Zool.* 1839, p. 44. *Comp. aux Œuv. de Buff.* xx. p. 258.
Chordeiles labeculatus, *Jardine. Ann. & Mag. Nat. Hist.* 1846, p. 118.
" Caprimulgus semitorquatus, Linn. Gm. Pr. Max," *Tschudi. Faun. Per. Orn.* p. 21.
Chordeiles peruvianus, *Peale. Zool. Voy. Vincennes and Peacock*, p. 172.

1, 2. Adult males, Peru.
3. Younger male, Peru.
4, 5. South America, from the Rivoli collection.
6. Adult, Guayaquil. Presented by W. S. W. Ruschenberger, M. D., U. S. Navy.

4. CHORDEILES RUPESTRIS, (Spix.) *Spix, Av. Bras.* ii. pl. 2.
Caprimulgus rupestris, *Spix. Av. Bras.* ii. p.
1. Male, Rio Negro, South America.
2. Female, Rio Negro, South America.
3. very young, same locality.

5. CHORDEILES SAPITI, Bonap. *Cons. Av.* p. 63.
"Caprimulgus sapiti, Natter. Mus. Vindobonens." *Bonap.* (*ut sup.*)
1, 2. Adults? South America.

2. Genus LUROCALIS, Cassin.

1. LUROCALIS NATTERERII, (Temm.) *Temm. Pl. Col.* 107.
Caprimulgus Nattererii, *Temm. Pl. Col.* ii. (liv. 18.)
"Caprimulgus brachyurus, Mus. Berol," *Erman. Reise, Verz.* p. 16.
1. Adult, South America, from the Rivoli collection.
2. Adult, South America. Presented by M. Burrough, M.D.
3. Adult, Brazil.

2. LUROCALIS SEMITORQUATUS, (Gm.) *Buff. Pl. Enl.* 734.
Caprimulgus semitorquatus, *Gmelin. Syst. Nat.* i. pt. ii. p. 1031.
Podager Gouldii, *G. R. Gray. Gen. of Birds*, pl. 18.
1. Adult, Cayenne, from the Rivoli collection.
2. Adult, Demarara, from Mr. Cassin's collection.

3. LEUROCALIS LEUCOPYGUS, (Spix.) *Av. Bras. Aves.* pl. 3, fig. 2.
Caprimulgus leucopygus, *Spix. Av. Bras. Aves.* p. 3.
Chordeiles minutus, *Bonap. Consp. Av.* p. 63.
1. Adult, Brazil, from the Rivoli collection.
2. Adult, Rio Negro.

3. Genus EUROSTOPODUS, Gould.

1. EUROSTOPODUS ALBOGULARIS, (Vig. & Horsf.) *Gould, B. of Aust.* ii. pl. 7.
Caprimulgus albogularis, *Vig. & Horsf. Linn. Trans. London*, xv. p. 194.
Caprimulgus mysticalis, *Temm. Pl. Col.* 410.
Caprimulgus albomaculatus, *Cuv.*
1. Adult male, Moreton bay, Australia, from Mr. Gould's collection.
2, 3. Females, same locality, from the same.
4, 5. Australia, from the Rivoli collection.

2. Eurostopodus guttatus, (Vig. & Horsf.) *Gould, B. of Aust.* ii. pl. 8.

Caprimulgus guttatus, *Vig. & Horsf. Linn. Trans. London*, xv. p. 192.

1, 2, 3. Males, Australia, from Mr. Gould's Collection.
4. Female, same locality from the same.
5. Young female? same locality, from the same.
6. Very young, Port Essington, from the same.
7. Adult, Australia, from the Rivoli collection.
8. Adult, Australia.

V. *Subfamily NYCTIDROMINÆ.*

1. Genus NYCTIDROMUS, Nuttall.

1. Nyctidromus americanus, (Linn.) *Sloan, Nat. Hist. Jamaica*, ii. p. 296, pl. 255, f. 1.

Caprimulgus americanus, *Linn. Syst. Nat.* i. p. 346, (1766.)
Caprimulgus jamaicensis, *Briss. Orn.* ii. p. 480.
Caprimulgus albicollis, *Gmelin. Syst. Nat.* i. pt. ii. p. 1030.
"Caprimulgus albicollis, Gm." *Hartlaub. Syst. Index zu Azara*, p. 20, (*Bremen*, 1847.)
"Caprimulgus albicollis, Linn. Gm. Lath. Vieill." *D'Orbigny. Guerin's Mag.* 1837. *p.* 67.
"Caprimulgus albicollis, Gm." *Lath. Gen. Hist.* vii. p. 359.
Caprimulgus laticaudatus, *Drapiez. Dict. Class. Hist. Nat.* vi. p. 169, (1824.)
Nyctidromus Derbyanus, *Gould. Icones Avium*, part ii. p. pl. 2, (1838.)

1, 2. Adults, South America. from the Rivoli collection.
3. Adult, Mexico, from Mr. Pease's collection.
4. Nearly adult, South America, from Mr. Cassin's collection.
5. Male, Nicaragua, from M. de Barueil's collection.

2. Nyctidromus guianensis, (Gm.) *Buff. Pl. Enl.* 733.

Caprimulgus guianensis, *Gmelin. Syst. Nat.* i. pt. ii. p. 1030.
"Caprimulgus albicollis, Linn. Gmel." *De Wied. Beitr.* iii. p. 318.
"Caprimulgus albicollis, Gm." *Lath. Index Orn.* ii. p. 585.

1. Adult male, Cayenne, from the Rivoli collection.
2. Younger male, Cayenne, from the same.
3. Female, Cayenne, from the same.
4, 5. Adult males, South America.
6. Younger, Surinam. Presented by C, Hering, M. D.

3. Nyctidromus grallarius, (Bonap.) *Consp. Av.* p. 62.

"Caprimulgus grallarius, Wied." *Bonap. ut sup.*

1, 2. Adult males, Bogota.
3. Female, South America.

2. Genus HYDROPSALIS, Wagler.

1. **Hydropsalis torquatus**, (Gm.) *Temm. Pl. col.* 157, 158.
Caprimulgus torquatus, *Gmelin. Syst. Nat.* vol. i. pt. ii. p. 1032.
Caprimulgus brasiliensis, *Brisson. Orn.* ii. p. 481.
Caprimulgus furcifer, *Vieill. Nouv. Dict.* x. p. 242.
“ Caprimulgus psalurus, Azara.” *Temm. Pl. col.* iv. p. (27 liv.)
“ Caprimulgus fissicaudus, Merrem.” *Gray. Cat. Brit. Mus. Fissiros.* p. 10.
“ Caprimulgus grandis, Linn. Gm.” *Lichtenstein. Verzeichniss,* p. 58.
Hydropsalis Azaræ, *Wagler. Isis,* 1832, p. 1222.
Psalurus macropterus, *Swains. Cab. Cy. Birds* ii. p. 339.
1, 2. Adult males, South America, from the Rivoli collection.
3, 4. Adult females, Brazil, from the same.

2. **Hydropsalis limbatus**, Cassin. *Proc. Acad. Philada.* Oct. 1849.
Hydropsalis creagra, *Bonap. Consp. Av.* p. 58, (1850.) ?
1. Adult male, South America, from the Rivoli collection.
2. Younger male, South America, from the same.
3. Female or young male, South America.

3. **Hydropsalis segmentatus**, Cassin. *Proc. Acad. Philada.* Oct. 1849.
1. Male, Bogota, New Grenada, from the Rivoli collection.
2. Female, Bogota, New Grenada, from the same.
3. Male, South America.

4. **Hydropsalis lyra**, Bonap. *Consp. Av.* p. 59, (1850.)
“ Hydropsalis lyra, Gould.” *Bonap. ut sup.*
1. Adult male, Bogota.
2. Young male ? South America.

5. **Hydropsalis climacocercus**, (Tsch.) *Fauna Peru. Aves,* pl. 6. fig. 1.
Caprimulgus climacocercus, *Tschudi. Wiegm. Archiv.* 1844, p. 269.
1. Female, Guiana.

3. Genus STENOPSIS. Cassin.

1. **Stenopsis cayennensis**, (Gm.) *Buff. Pl. Enl.* 760.
Caprimulgus cayennensis, *Gmelin. Syst. Nat.* i. pt. ii. p. 1031.
Caprimulgus leucurus, *Vieill. Nouv. Dict.* x. p. 246.
Caprimulgus cayanus, *Lath. Index* ii. p. 587.
Caprimulgus leopetes, *Jard. and Sel. Ill. Orn.* ii. pl. 87.
Caprimulgus odontopteron, *Lesson. Rev. Zool.* 1839, p. 105. *Comp. aux Œuv. Buff.* xx. p. 260.
Caprimulgus enicurus, *Vieill. Nouv. Dict.* x. p. 243 ?
Hydropsalis trifurcatus, *Natt. Tschudi, Fauna Per. Orn.* p. 129?
1, 2. Adult males, Cayenne, from the Rivoli collection.
3. Female, South America, from the same.
4. Male, South America. Presented by C. Herring, M. D.

2. **STENOPSIS LONGIROSTRIS**, (Bonap.) *Tschudi, Faun. Per. Aves.* pl. 5, fig. 1.
   Caprimulgus longirostris, *Bonaparte. Journ. Acad. Philada.* iv. p. 384, (1825.)
   Caprimulgus bifasciatus, *Gould. Proc. Zool. Soc. London*, 1837, p. 22.
   Caprimulgus decussatus, *Tschudi. Consp. Av.* p. 8.
      1. Male, South America, from the Rivoli collection.
      2. Female, South America, from the same.
      3. Female, South America.

3. **STENOPSIS PARVULUS**, (Gould.)
   Caprimulgus parvulus, *Gould. Proc. Zool. Soc. London*, 1837, p. 22.
   Caprimulgus æquicaudatus (♂) et conterminus, (♀), *Peale. Zool. Voy. Vincennes and Peacock*, p. 168, 169.
      1, 2. Males, South America.
      3. Female, South America.

4. **STENOPSIS NIGRESCENS**, (Cabanis.) *Gray's Genera*, pl. 17.
   Caprimulgus nigrescens, *Cabanis. Schomburgk, Reisen in Brit. Guiana*, iii. p. 710.
   "Caprimulgus semitorquatus, Gm." *Gray. Gen. ut sup.*
      1. Adult, South America.

5. **STENOPSIS HIRUNDINACEUS**, (Spix.) *Av. Bras.* ii. pl. 3, fig. 1?
   Caprimulgus hirundinaceus, *Spix. Av. Bras.* ii. p. 2?
      1. Young, Cayenne, from the Rivoli collection.

4. Genus PODAGER, Wagler.

1. **PODAGER NACUNDA**, (Vieill.) *Temm. Pl. col.* 182.
   Caprimulgus nacunda, *Vieill. Nouv. Dict.* x. p. 240.
   Caprimulgus campestris, *Licht. Verzeichniss*, p. 59.
   Caprimulgus diurnus, *De Wied. Reise*, ii. p. 174.
      1, 2, 3. Adults, South America, from the Rivoli collection.

5. Genus ANTROSTOMUS, Gould.

1. **ANTROSTOMUS CAROLINENSIS**, (Gm.) *Aud. B. of Am.* pl. 52.
   Caprimulgus carolinensis, *Gmelin. Syst. Nat.* i. pt. ii. p. 1028.
   Caprimulgus lucifugus, *Bartram. Trav.* p. 292.
   Caprimulgus rufus, *Vieill. Ois. d'Am.* Sept. i. p. 57, pl. 25.
   Caprimulgus brachypterus, *Stephens. Gen. Zool.* x. pt. i. p. 150.
      1. Adult, South Carolina. Presented by William Blanding, M. D.
      2. Adult, North America, from the Rivoli collection.
      3. Adult, Florida. Presented by E. A. Abadie, M. D., U. S. Army.

2. **Antrostomus rufus**, (Bodd.) *Buff. Pl. Enl.* 735.

Carprimulgus rufus, *Boddaert. Tab. Pl. Enl.* p. 46, (1783.
Caprimulgus rufus, *Gmelin. Syst. Nat.* vol. i. pt. ii. p. 1030, (1788.)

1. Adult, South America ?

3. **Antrostomus serico-caudatus**, Cassin. *Proc. Acad. Philada.* Oct. 1849.

1. Adult, South America.
2. Younger, South America, from the Rivoli collection.

4. **Antrostomus vociferus**, (Wilson.) *Wilson, Am. Orn.* pl. 41.

Caprimulgus vociferus, *Wilson. Am. Orn.* v. p. 71.
Caprimulgus clamator, *Vieill. Nouv. Dict.* x. p. 234, (1817.)
Caprimulgus macromystax, *Wagler. Isis.* 1831, p. 533 ?
"Caprimulgus Virginianus, Linn., Gm." *Vieill. Ois d'Am. Sept.* i. p. 55, pl. 23, (1807.)

1. Adult male, near Philadelphia. Presented by J. K. Townsend, M. D.
2. Adult female, near Philadelphia, presented by the same.
3. Adult female, near New York.
4. Female, near New York.
5. A. macromystax ? Vera Cruz. Presented by M. Burrough, M. D
6. The same, Mexico.

5. **Antrostomus Nuttalii**, [Aud.) *Audubon, B. of Am. Octavo edition*, pl. 495.

Caprimulgus Nuttalii, *Audubon. Orn. Biog.* v. p. 335.

1. Adult, Rocky Mountains. Presented by Mr. J. J. Audubon.

6. **Antrostomus ocellatus**, (Tsch.) *Fauna Peruana, Orn.* pl. 5, fig. 2.

Caprimulgus ocellatus, *Tschudi. Weigmann, Archiv.* 1844, p. 268.
"Caprimulgus brasilianis, Linn. Gm. Prinz Max." *Tsch. Faun. Per. Orn.* p. 20.

1. Adult, South America.
2. Adult, male, Brazil.
3. Adult, Brazil.

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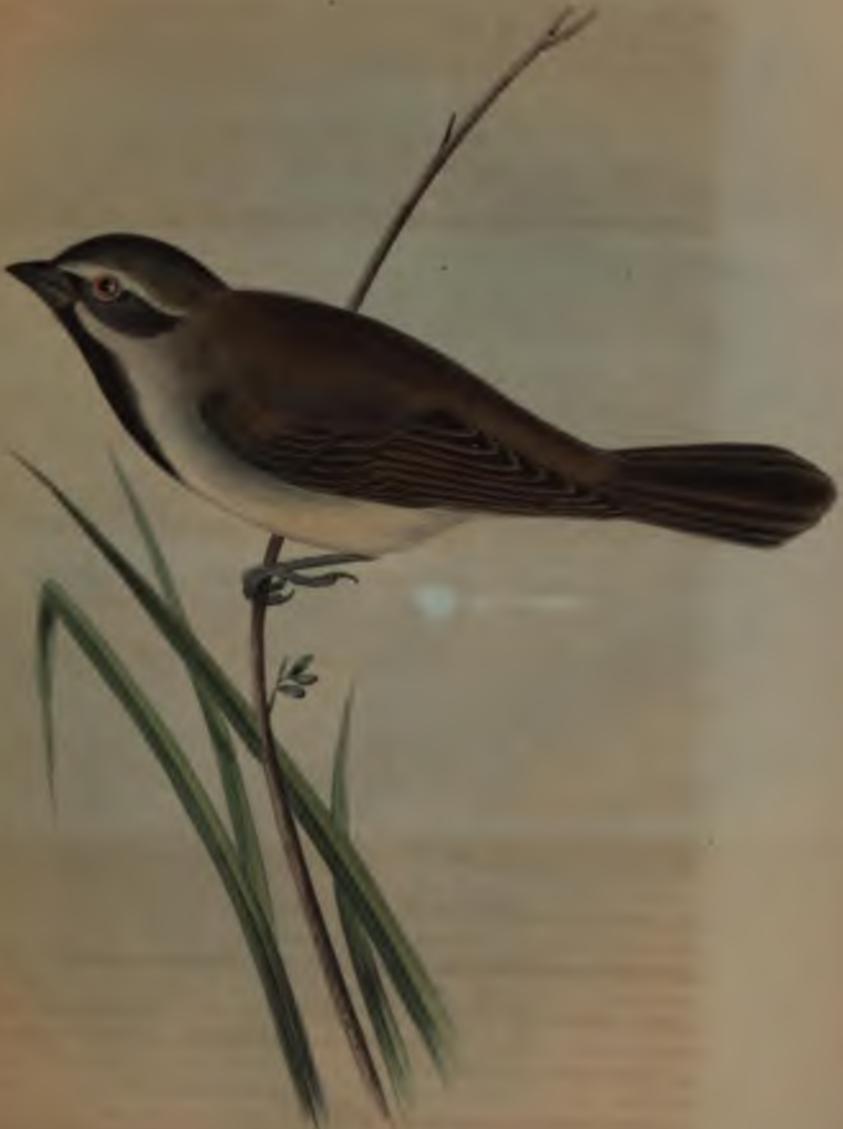
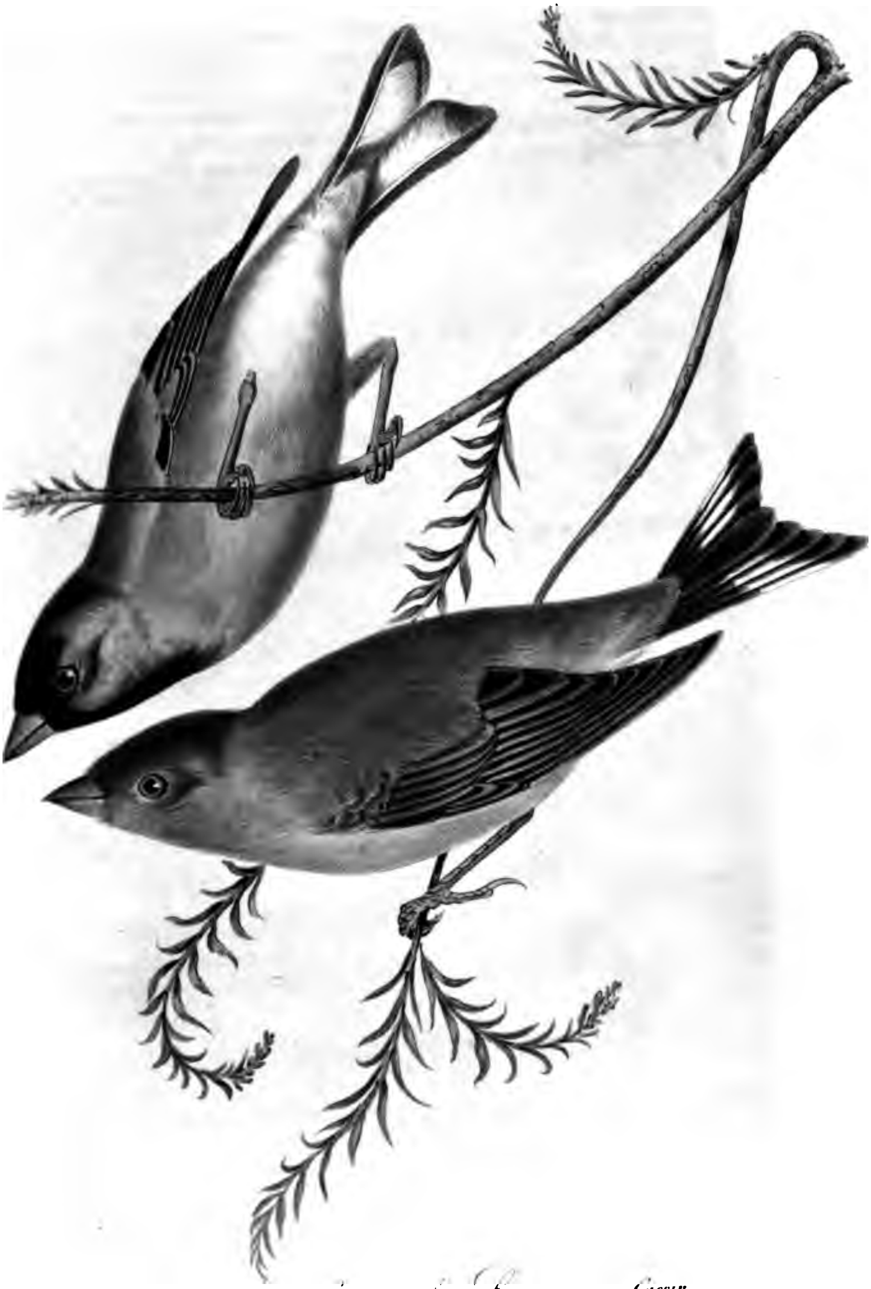
Plate 3.



Emberiza bilineata, Cassin.

Drawn by H. L. Stephens.

Lith. Printed & Col^{d} by J. T. Bowen, Ph

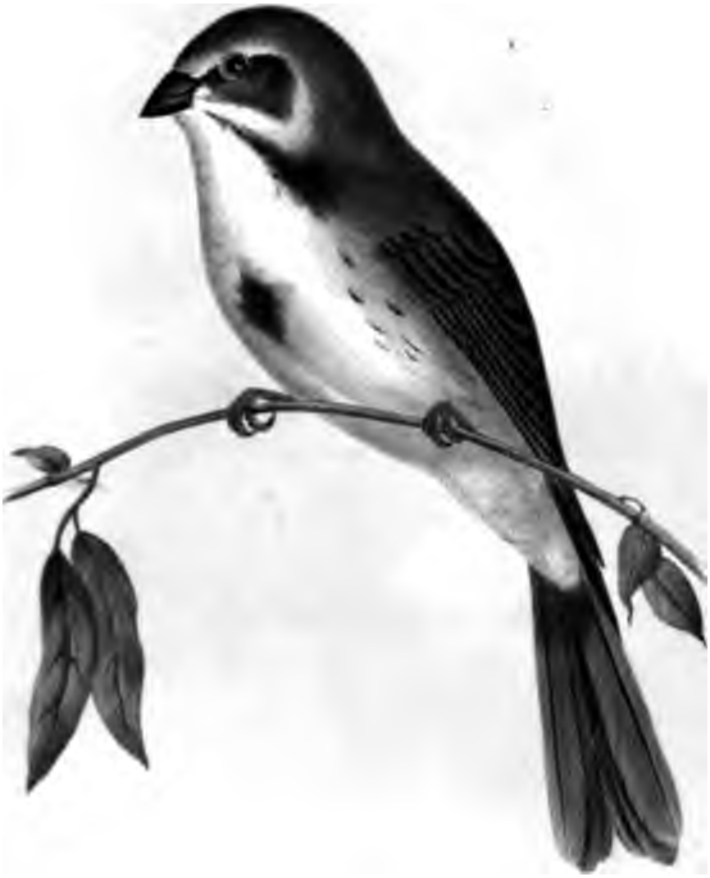


Carduelis Lawrencii. Cassin.

Drawn by H. L. Stephens

Lith.d Printed [illegible] by [illegible]

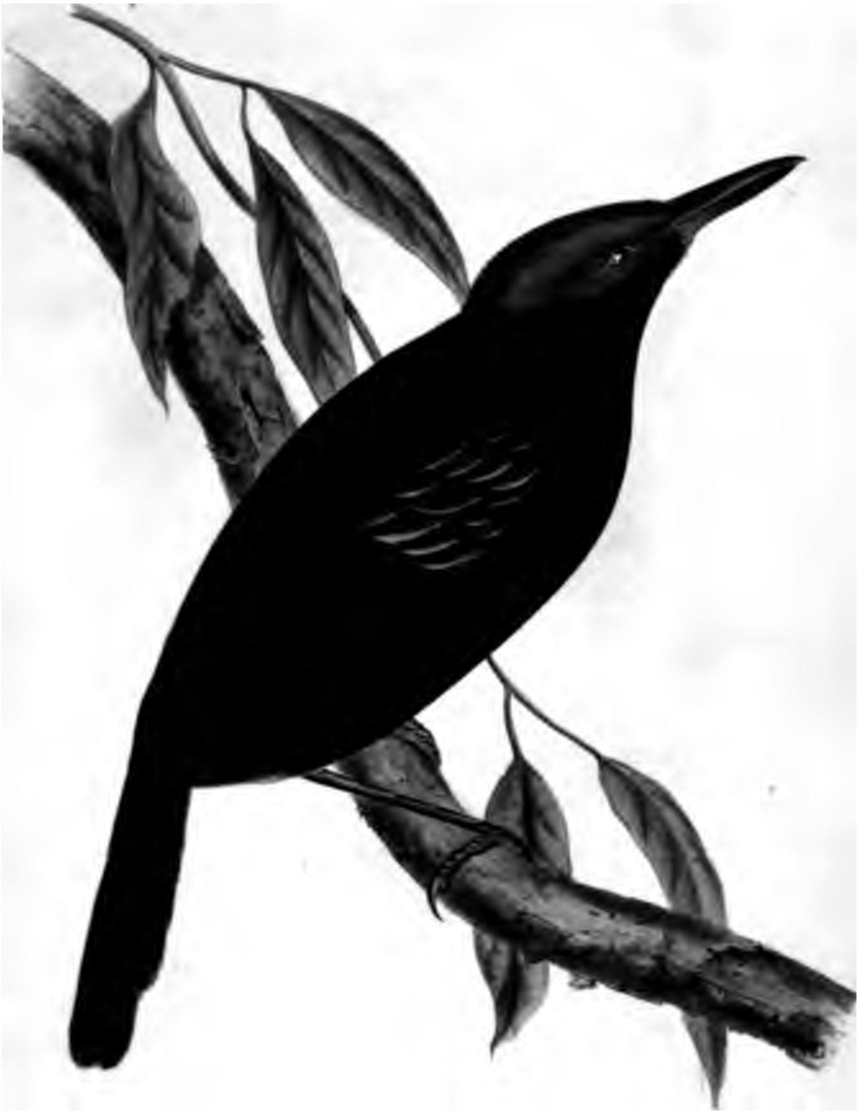
Drawn on Stone by Wm E. Hitchcock



Emberiza Belli Cassin

Drawn by H. L. Stephens

Lith. Printed & Col^{d} by J. T. Bowen



Myiothera nudiceps Cassin

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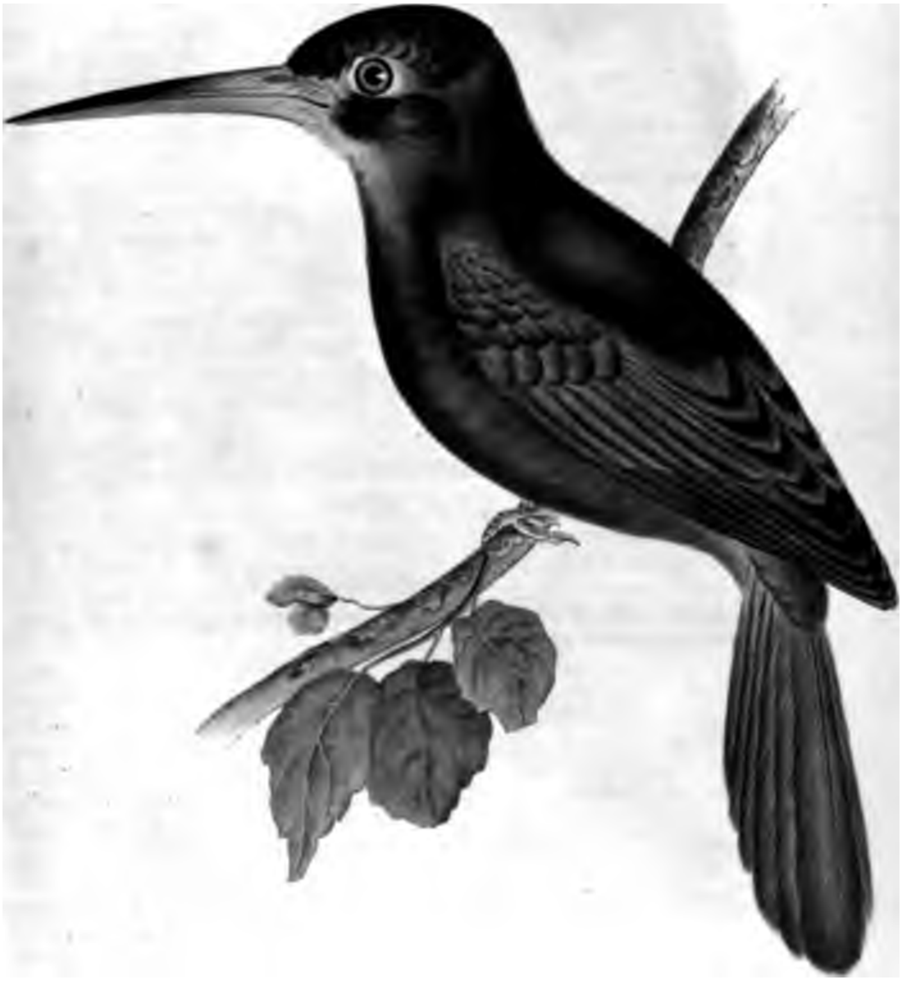
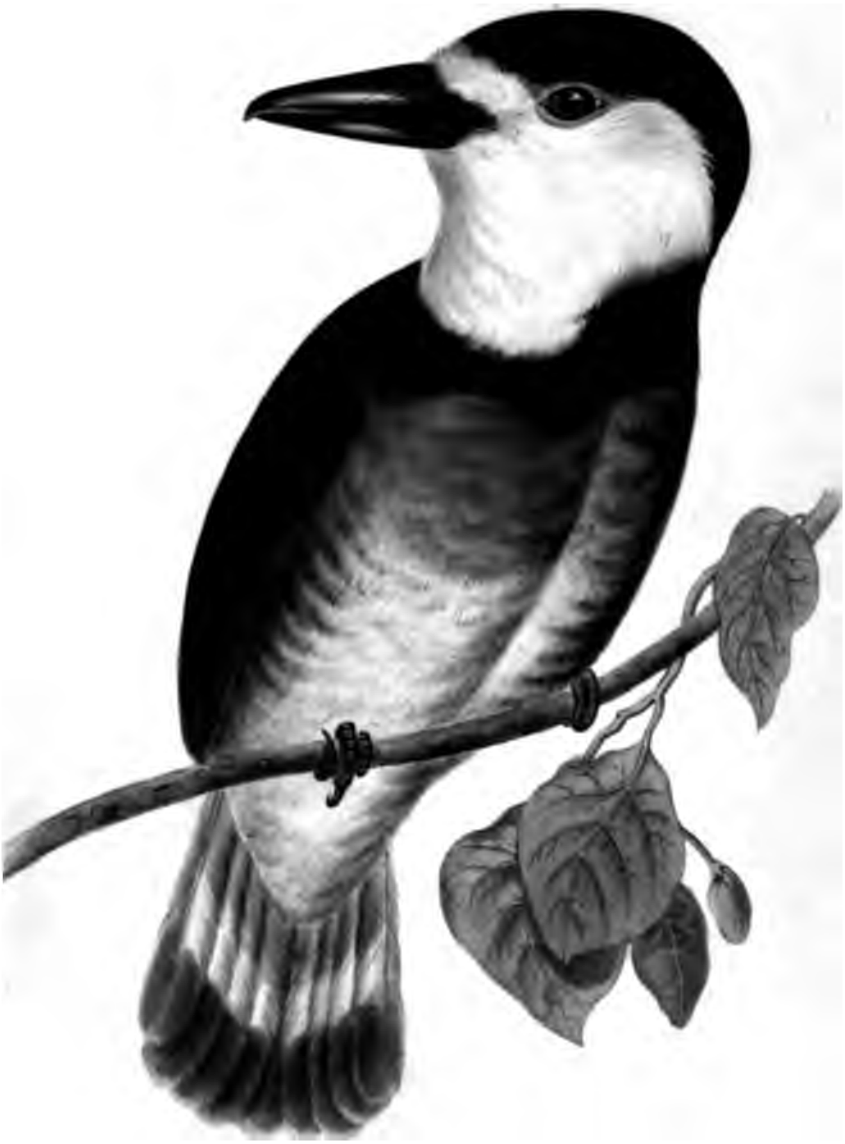


Galbula cyanicollis Cass.



Bucco Ordii Cassin

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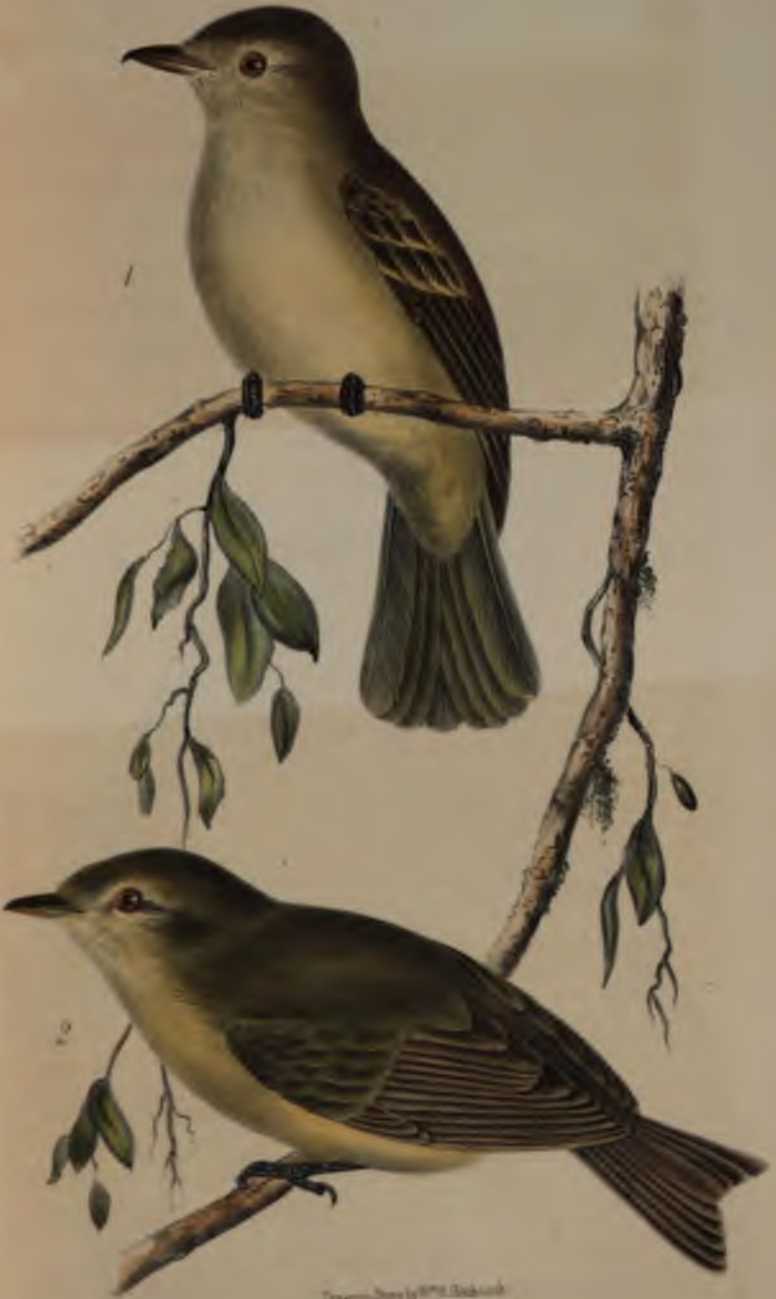
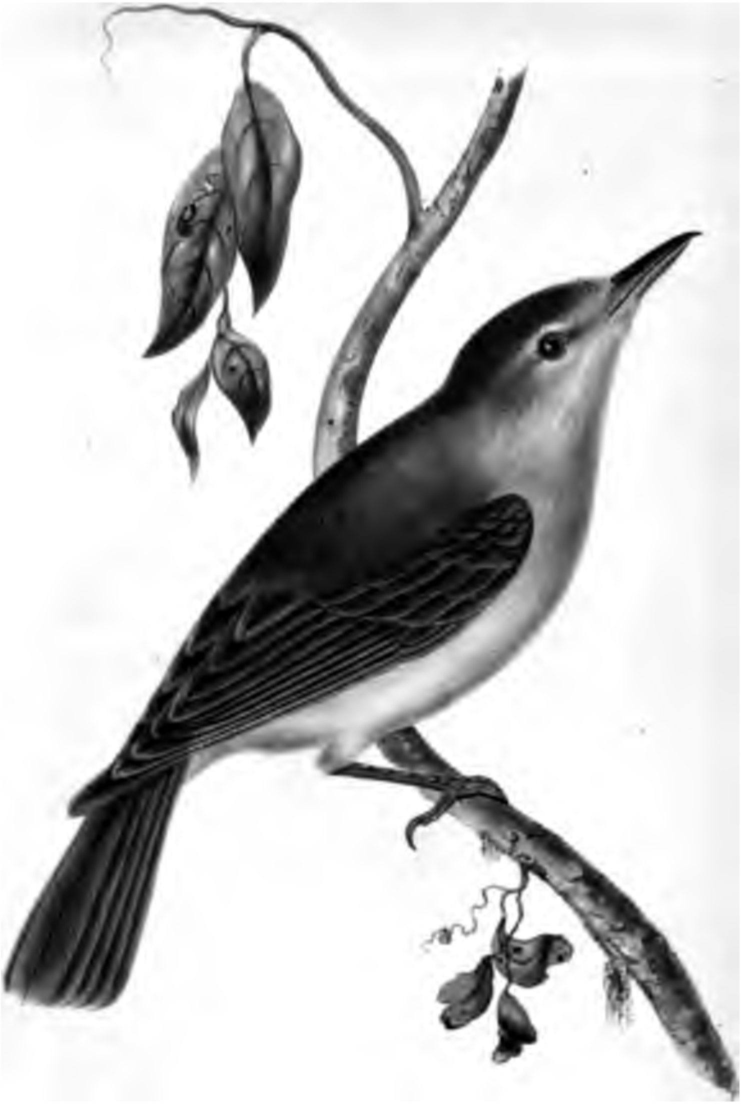


Drawn on Stone by Wm. H. Hitchcock

1 Vireo Huttoni Cassin
2 Vireosylvia philadelphica Cassin

Lith. Printed & Colᵈ by J.

by H. L. Stephens



Vireosylvia flavoviridis Cassin